United States
Department of
Agriculture

Economic
Research
Service

Agricultural
Economic
Report
Number 565

Food Marketing Review, 1986

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FOOD MARKETING REVIEW, 1986. National Economics Division, Economic Research Service, U.S. Department of Agriculture. Agricultural Economic Report No. 565.

ABSTRACT

U.S. food marketing sales likely will reach an estimated $555 billion in 1986, with food and beverage sales of $485 billion and $70 billion in nonfood sales, 5 percent over 1985. Food marketing will continue to be the largest U.S. marketing system, accounting for about one-tenth of both U.S. employment and gross national product (GNP). The food marketing system's contribution to GNP will be nearly nine times the value of the U.S. farm system's food-related contribution. Food manufacturers, retailers, and wholesalers will rank first in sales among all manufacturers, retailers, and wholesalers. This report analyzes these and other developments in the U.S. food marketing system.

Keywords: Food service, retailing, manufacturing, wholesaling, marketing

Note: Use of brand or firm names in this publication does not imply endorsement by the U.S. Department of Agriculture.

ACKNOWLEDGMENTS

This report was prepared by the following staff members of the National Economics Division, Economic Research Service, U.S. Department of Agriculture.

Anthony E. Gallo	Project coordinator Food manufacturing
Walter B. Epps	Food wholesaling
Phillip R. Kaufman and Charles R. Handy	Food retailing
Harold R. Linstrom and Judith J. Putnam	Food service
Charles R. Handy	Section leader
Lester H. Myers	Branch chief

The authors are grateful to Gene Gerke and Frank Panyko for their review of early drafts of the report. Sandra L. McNair and Sandra Wright did the typing.

Washington, DC 20005-4788 February 1987

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GLOSSARY

Aggregate concentration--The share of output in a sector (say, food manufacturing) that is produced by the largest firms.

Chain--A food retailer or foodservice operator owning 11 or more stores or outlets.

Disposable personal income (DPI)--Income that individuals retain after they have deducted taxes.

Divestiture--The sale of a unit (a factory, a division, or a subsidiary) of a firm, either to another firm, to management of the unit, or to independent investors.

E.A.S.--Electronic Article Surveillance system, consisting of hidden labels on products which if removed from the premises without passing through a checkout stand will activate an alarm.

Food manufacturing--Activities that typically use power-driven machines and materials-handling equipment to mechanically or chemically transform raw materials into foods and beverages for human consumption. Certain related industrial products, such as feeds, and vegetable and animal fats and oils, are also produced here.

Food service--The dispensing of prepared meals and snacks intended for onpremise or immediate consumption, except for the following products when other foods are not available: candies, popcorn, pretzels, nuts, and drinks. Vended foods qualify as food service only when tables or counters are available in the immediate area and a person with records of food receipts is present at the establishment.

Commercial establishments--Public establishments (free standing or included in/as part of a host establishment) with the objective of the preparation/serving and sale of meals and snacks for profit to the general public.

Drinking places--Establishments with food service that do not operate as subordinate facilities of different and separately identifiable kinds of businesses and whose primary function is the sale of alcoholic beverages sold for consumption on the premises. Includes bars, beer gardens, taverns, night clubs, and saloons.

Eating places--Establishments that do not operate as subordinate facilities of different and separately identifiable kinds of businesses, and the primary function of which is the sale of prepared meals and snacks for onpremise or immediate consumption. Includes restaurants/lunchrooms, fast food outlets, and cafeterias.

Lodging places--Establishments that provide both lodging and food service to the general public. Included are hotels, motels, and tourist courts. Excluded are rooming and boarding houses and private residences.

Recreation/entertainment--Foodservice operations in theaters; bowling, billiard, or pool halls; commercial sports establishments (racetracks and stadiums); membership golf or country clubs; public golf courses;

and miscellaneous commercial amusement and recreational establishments (tennis clubs, camps, athletic clubs, and amusement parks).

Retail hosts--Foodservice operations that operate in conjunction with/as part of retail establishments, such as department stores, limited-price variety stores, drug stores, and miscellaneous retailers.

Noncommercial establishments--Establishments where meals and snacks are prepared/served as an adjunct, supportive service to the primary purpose of the establishment. Includes schools, colleges, hospitals and extended care facilities, vending, plants and offices, correctional facilities, military feeding, and transportation (trains, cruise ships, and airplanes).

Foodstore--A retail outlet with at least 50 percent of sales in food products intended for off-premise consumption.

Grocery store--A foodstore that sells a variety of food products, including fresh meat, produce, packaged and canned foods, frozen foods, other processed foods, and nonfood products.

Supermarket--A grocery store, primarily self-service in operation, providing a full range of departments, and having at least $2.5 million in annual sales in 1985 dollars.

Combination food and drug store--A supermarket containing a pharmacy, a nonprescription drug department, and a greater variety of health and beauty aids than that carried by conventional supermarkets.

Superstore--A supermarket distinguished by its greater variety of products than conventional supermarkets, including specialty and service departments, and considerable nonfood (general merchandise) products.

Warehouse store--A supermarket with limited product variety and fewer services provided, incorporating case lot stocking and shelving practices. Superwarehouse stores are larger and offer expanded product variety and often service meat, deli, or seafood departments.

Convenience store--A small grocery store selling a limited variety of food and nonfood products, typically open extended hours.

Superette--A grocery store, primarily self-service in operation, selling a wide variety of food and nonfood products with annual sales below $2.5 million in 1985 dollars.

Specialized foodstore--A foodstore primarily engaged in the retail sale of a single food category such as meat and seafood stores, dairy stores, candy and nut stores, and retail bakeries.

Foreign investment--Ownership of domestic assets by foreign persons or firms.

Gross margin--Retailer markup (over cost) as a percentage of total sales.

Horizontal mergers--A combining of two firms producing the same or similar products in the same market.

Gross national product (GNP)--Dollar value of all goods and services sold plus the estimated value of imported outputs during a given period.

Independent--A food retailer or foodservice operator owning 10 or fewer stores or outlets.

Megamerger--Very large mergers.

Merger--The combination of two or more firms into one.

Productivity growth--Measures of the rate of growth of output, relative to the growth of inputs (labor, capital, and materials) used to produce that output.

Wholesalers--Operators of firms engaged in the purchase, assembly, transportation, storage, and distribution of groceries and grocery products, serving retailers, institutions, business, industrial, and commercial users.

Agents and brokers--Wholesale operators who buy or sell on the account of others for a commission and usually do not store or physically handle products.

Manufacturers' sales branches and offices--Wholesale operations maintained by grocery manufacturers (apart from their plants) for distribution purposes.

Merchant wholesalers--Operators of firms primarily engaged in buying and selling groceries and grocery products on their own account.

General line wholesale merchants--Merchants handling a broad line of dry groceries, health and beauty aids, and household products.

Limited line wholesale merchants--Merchants who handle a narrow range of dry groceries dominated by canned foods, coffee, spices, bread, and soft drinks.

Specialty wholesale merchants--Merchants who handle perishables, such as frozen foods, dairy products, poultry, meat, fish, fruits, and vegetables.

SUMMARY

U.S. food marketing sales will likely reach an estimated $555 billion in 1986, with food and beverage sales of $485 billion and $70 billion in nonfood sales, 5 percent over 1985. Food marketing will continue to be the largest U.S. marketing system, accounting for about one-tenth of both U.S. employment and gross national product (GNP). The food marketing system's contribution to GNP will be nearly nine times the value of the U.S. farm system's food-related contribution. Food manufacturers, retailers, and wholesalers will rank first in sales among all manufacturers, retailers, and wholesalers. This report analyzes these and other developments in the U.S. food marketing system.

Other highlights in food marketing for 1986 include:

- Food marketing mergers appear likely to surpass 1985's near-record high of 480, but the magnitude of the mergers likely will be less. Of the 480 mergers in 1985, 25 were valued at over $100 million compared with two such blockbuster mergers in food retailing and two in food service in 1986. Five of the largest mergers in food marketing history occurred in 1985.

- The 1986 value of shipments in food processing will reach $315 billion, while sales volume in food wholesaling may increase about 7 percent to $385 billion. Food and alcoholic beverage sales in retailing should rise 5 percent to $270 billion. Foodservices sales, including alcoholic drinks, will rise 6.5 percent to $215 billion. Foodstores are increasingly competing with restaurants for the foodservice dollar.

- The food marketing system will buy a projected $85 billion in U.S. agricultural commodities, $15 billion in foreign agricultural commodities, and $8 billion in seafood products in 1986. Food processing will add an estimated $70 billion to the value of this raw food supply; wholesaling, retailing, and transportation combined will add over $135 billion; and eating and drinking places will add $60 billion.

- Wage and price stability has allowed costs to be held down, as very moderate increases in food prices reflect. Average hourly earnings in food retailing are expected to increase little in 1986 after falling in 1985.

- Food marketing advertising and couponing will increase about 6 percent in 1986. Food expenditures account for about 15 percent of disposable income, but the food system accounts for nearly 30 percent of advertising expenditures.

- The food marketing system will introduce about 2,500 new products in 1986 compared with 2,220 in 1985.

- New plant and equipment expenditures in 1986 are projected to reach $10.5 billion compared with $10.3 billion in 1985.

- The number of foodstores continues a long-term decline, falling to an estimated 237,000 in 1986. The trend toward larger supermarkets continues, indicated by the increasing number of superstores, combination stores, and warehouse stores.

- Wholesale clubs, although still a minor part of total volume, are growing and servicing small businesses and group members with food as a major product line.

- Foreign investment in U.S. food marketing reached $15 billion in 1985, while U.S. food marketing firms invested nearly $12 billion in foreign markets. U.S. processed food exports in 1986 will probably post their fourth consecutive trade deficit, nearly matching 1985's $5.7 billion trade deficit.

Food Marketing Review, 1986

INTRODUCTION

Food sales in the U.S. food marketing system (manufacturing, wholesaling, retailing and service) are projected to reach about $485 billion in 1986 (app. tables 1 and 2). Food wholesaling, retailing, and foodservice firms will also sell $70 billion in such nonfood grocery items as tobacco, health and beauty aids, and household and cleaning supplies.

The U.S. food marketing system, an aggregate of all firms that process, transport, wholesale, and retail the Nation's food, performs a critically important function in marketing our agricultural output from the farm gate to the final consumer. This publication analyzes yearly developments in the size, structure, behavior, and performance of the food marketing system.

OVERVIEW

The food system (even without nonfood grocery items) in 1986 will continue to be the largest marketing system in the U.S. economy, accounting for about one-tenth of both U.S. employment and gross national product (GNP). Food manufacturers, retailers (both grocery retailing and food service), and wholesalers in 1986 will rank first in sales among all manufacturers, retailers, and wholesalers. The food marketing system's contribution to the Nation's GNP will be nearly nine times the value of the U.S. farm system's food-related contribution (app. table 2).

The food system, which includes alcoholic beverages, will purchase about $85 billion in animal and crop products from the U.S. farm system, about two-thirds of domestic production. An additional $18 billion will be spent on imported agricultural products, including $6 billion for such noncompetitive products as coffee, bananas, cocoa, and spices and $12 billion for such competitive products as meats, dairy, and produce. Another $7-$8 billion will likely be spent on seafood purchases. To this base of $110 billion of raw agricultural and fishery products, the food system will add over $300 billion in value. The Nation's 16,800 food processors will add about $80 billion in 1986, while wholesalers, retailers, institutional feeders, and transportation firms will add another $130-$140 billion. The contribution of separate eating and drinking places, about 400,000 establishments, will likely exceed $60 billion.

The major portion of the value added by the food marketing system is labor, ranging from payroll for workers in food processing plants to waiters in restaurants and institutional dining rooms. Although the U.S. food system is the major customer of the domestic farm economy, purchased agricultural products are not the major cost of the food system. Labor costs exceed the cost of the raw product, especially when farm prices are as depressed as in 1986. Although heavy direct use of energy in food marketing is limited solely to food manufacturing, the food system is one of the larger users of the transportation system and the largest user of packaging materials, both of which are energy intensive. Capital expenditures are relatively minor, primarily because of low capital investment in retailing, food service, and wholesaling. Food manufacturing does, however, have sizable capital expenditures.

The economic climate in 1985 was highly favorable to cost control in food marketing but only moderately favorable to demand growth; 1986 appears to be a repetition of 1985. For the food sector, where demand is fairly stable, economic developments have a much greater effect on the cost side. Low farm prices, wage and price stability, falling energy prices, a weakened dollar, and sharply reduced interest rates characterized the economic climate facing the food marketing system in 1985 and 1986.

The food marketing system is paying considerably lower prices for many domestic farm commodities in 1986. Overall prices paid to farmers are averaging about 5 percent lower than in 1985 and 15 percent lower than in 1984. The 1986 drop will reflect a 2-percent increase for livestock-related food product prices and a 13-percent drop for crop-related food product prices. Continued high production levels and lower support prices for milk and grains are contributing to the decline. A sharp drop in exports, nearly $5 billion from the 1985 level of $31 billion, which in turn had fallen $7 billion from the previous year, is also contributing to the decline in farm prices. Decelerated world economic growth, especially in the less developed countries, and expanded world production led to the export drop. Although the U.S. dollar is weak relative to many foreign currencies, the effect has been blunted because some of our leading customers either have weakening currencies or currencies tied to the U.S. dollar.

Cereal and bakery manufacturers are paying about 5 percent less for agricultural products than they did a year ago, while dairy and fresh fruit processors also are paying less. Meat processing firms are paying about 1 percent more than in 1985. Seafood processors are paying 3-4 percent more for domestic and foreign seafood products than they did a year ago due to domestic labor problems, a higher exchange rate on the supply side, and combined heavy worldwide demand. Wholesale prices of imported foodstuffs in September 1986 averaged 15 percent above those of September 1985, while prices of food exports averaged 14 percent lower.

Labor costs, which include hourly earnings and other fringe benefits, will constitute the major expense item for the food marketing system in 1986. In 1985, average weekly earnings declined in food retailing and food service, while food processing and food wholesaling rose minimally. For the first 9 months of 1986, weekly earnings in food processing moderately increased less than 2.5 percent. Weekly earnings in the other three food marketing sectors dropped from the previous year's levels. Fringe benefits also appear to be scaled down. Employment is up about 400,000 workers for all segments of the food marketing system. However, a significant portion of grocery retailing and foodservice employment is part-time. Full-time equivalent employment is projected to be up slightly from 1985.

Energy prices have declined about 15 percent in 1986 as the price of crude oil dropped drastically between 1985 and 1986. Thus, the cost of transporting foods likely will increase little in 1986, while direct costs of energy use by the marketing system will show a small decline. Packaging costs, also energy intensive, in such industries as glass, paper, and plastics, showed a 2-percent decrease. The overall producer price index, a barometer of other costs to the food marketing system, will likely rise 1 percent in 1986. Long- and short-term interest rates have dropped significantly, lowering borrowing costs. Three-month U.S. Treasury bill rates averaged 6.1 percent in August 1986 compared with 8.7 percent in August 1985. The rate for Moody's AAA 20-year bonds was 8.9 percent in 1986 compared with 11 percent a year earlier.

Factors within the 1986 economy moderately favor the marketing system. Sluggish economic growth has accompanied wage and price stability in 1986. Real GNP (adjusted for inflation) jumped nearly 7 percent in 1984, increased a little less than 3 percent in 1985, and will rise about 2.5 percent in 1986. The unemployment rate, falling to 6.8 percent by yearend 1985, rose to 7.1 percent in August 1986. Much of the unemployment increase has been regional, affecting States that have been hurt by the depressed oil- and agriculturally related industries. Real disposable income per person has averaged about 2.5 percent higher. Reduced interest and mortgage rates and energy prices have freed more income for spending in the Nation's grocery stores and eating places.

But, income growth is only one of the three basic determinants of domestic food demand. Changes in the size of the employed labor force (up about 2.5 million in 1986) and the size of the population also affect demand. Annual population growth of less than 1 percent means about 2 million more mouths to feed each year. Real (adjusted for inflation) sales by food manufacturers increased about 4 percent between June 1985 and June 1986. Real sales in eating and drinking places were about 2 percent higher, reflecting their sensitivity to changes in consumer income. Per capita food consumption in 1986 is unchanged or down slightly from 1985 so that increases in real sales of the three principal food marketing industries (wholesaling, retailing, and service) appear to be rooted in population growth and changes in product mix toward higher value-added products. Despite a 30-percent decline in the value of the U.S. dollar, processed food will likely experience a $5.5-billion balance of trade deficit in 1986.

Overall profit margins for the food marketing system are not likely to increase in 1986 despite volume growth and favorable wage and price stability. Profits in 1985 as a percentage of equity remained unchanged from those of 1984, according to available statistics. The same appears to be true for profits in 1986. Expenses related to merger activity and larger advertising and promotion campaigns may be contributing factors.

Average retail prices for food are likely to increase about 3 percent in 1986, about 2.7 percent for food at home and 3.9 percent for food away from home, because of stable wages, prices, input costs, and profit margins. For the first time in 9 years, the Consumer Price Index (CPI) for food may increase more than that for nonfood goods and services due to sharply lower energy costs. If energy costs are excluded, food price increases will likely be lower than nonfood price increases.

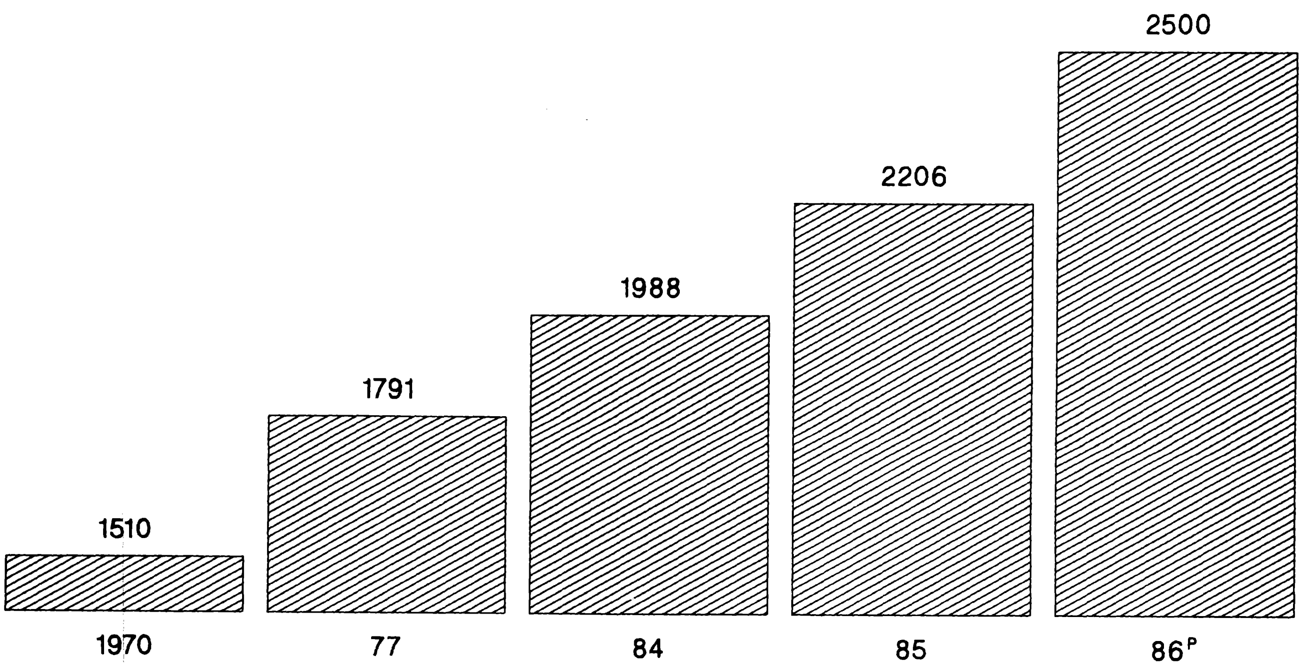
Food sales through the U.S. food marketing system as a percentage of disposable personal income (DPI) may fall to less than 14 percent in 1986. The smaller portion of DPI allocated to food reflects the inherent slow growth characteristic of the food marketing system and explains many of the behavioral developments in 1986. These developments relate to the continued competition for the U.S. food dollar in the stable but slow-growing food marketing system.

Competition to acquire a greater share of the food dollar is reflected not only within each industry in the system but also among industries. The battle between the two retailing industries, grocery and food service, appears to be headed for a standstill in 1986. Food service will likely acquire 43 percent of total consumer food expenditures, unchanged from 1985, perhaps indicating diminished growth in increased market share and continued expansion of grocery retailing into the foodservice area. Types of grocery outlets are changing, fast food franchises are gaining shares in eating place sales, food wholesalers are continuing their forays into retail grocery outlets, and food manufacturers are battling for scarce space on supermarket shelves. Nearly 2,500 new products will be introduced in 1986 (fig. 1), and advertising expenditures by food marketing firms in 1985, at $9 billion, averaged 11 percent above those of 1985 (fig. 2). Food is the most advertised of all consumer products. Whereas food sales now account for 14 percent of the Nation's disposable income, the food system accounts for about 28 percent of advertising expenditures. For the first 6 months of 1986, the system's advertising expenditures averaged only 6 percent above the first half of 1985. The deceleration largely mirrors slower advertising activity throughout the American economy.

Within this behavioral framework, mergers arise as one of the most important structural developments within the food marketing system in 1986 and in the long run.

Mergers and acqusitions in the four food marketing sectors in 1985 rose 63 over those of 1984 to a near-record level of 480: 291 in food processing, 73 in food service, 64 in food wholesaling, and 52 in food retailing (the only sector in

Figure 1
Number of New Product Introductions



P= Preliminary figures.
Source: (*10*).

which mergers dropped from those of 1984 when they totaled 60) (fig. 3). Within the category of large mergers (those costing $100 million or more), food marketing accounted for 25, 6 of which were among the 100 largest transactions in history, 3 of which (Philip Morris-General Foods; Kohlberg, Kravis, Roberts, and Company-Beatrice; and R. J. Reynolds-Nabisco) each cost about $5 billion or more.

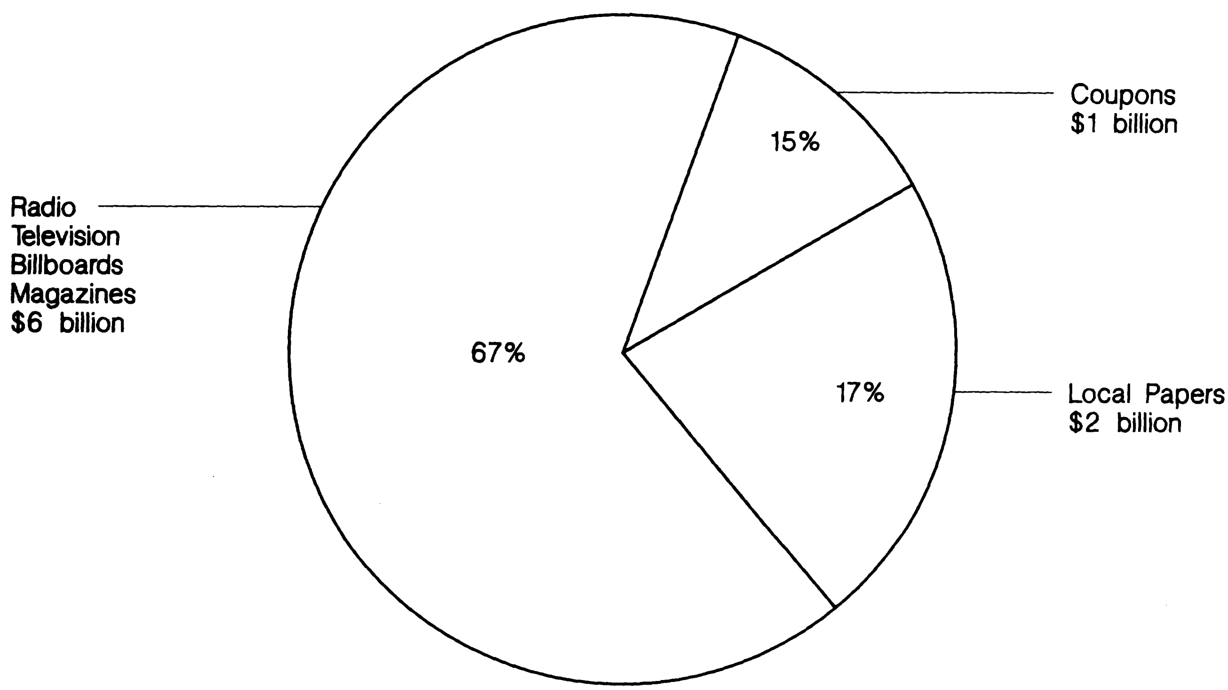
But, food marketing mergers are often short lived. Divestitures of previously acquired companies were also quite high during 1985. A number of conglomerate firms, such as Beatrice, Sara Lee, and IC Industries, sold some of their food marketing operations. Dart and Kraft, which merged in 1981 and was the sixth largest merger in food marketing history, announced that they will again separate.

Food marketing mergers during the first 9 months of 1986 exceeded the very high levels of 1985, but the magnitude of the mergers appears to be lower (table 1). Megamergers (PepsiCo-RJR Nabisco's subsidiary Kentucky Fried Chicken; Marriot-Saga; and Kohlberg, Kravis, Roberts, and Company-Safeway) occurred in fall 1986. Proposed horizontal mergers between Coca-Cola and Dr Pepper and between Pepsi-Cola and Seven-Up were dropped after the Federal Trade Commission (FTC) challenged them.

Continued merger activity will continue to contribute to the declining number of food marketing firms although the number of small, single establishments would continue to drop even without mergers. According to the 1982 Census of Manufactures, the number of companies in food processing, retailing, and food service dropped from the previous 5-year census. Only food wholesaling gained, largely

Figure 2

Food Marketing Advertising, 1985

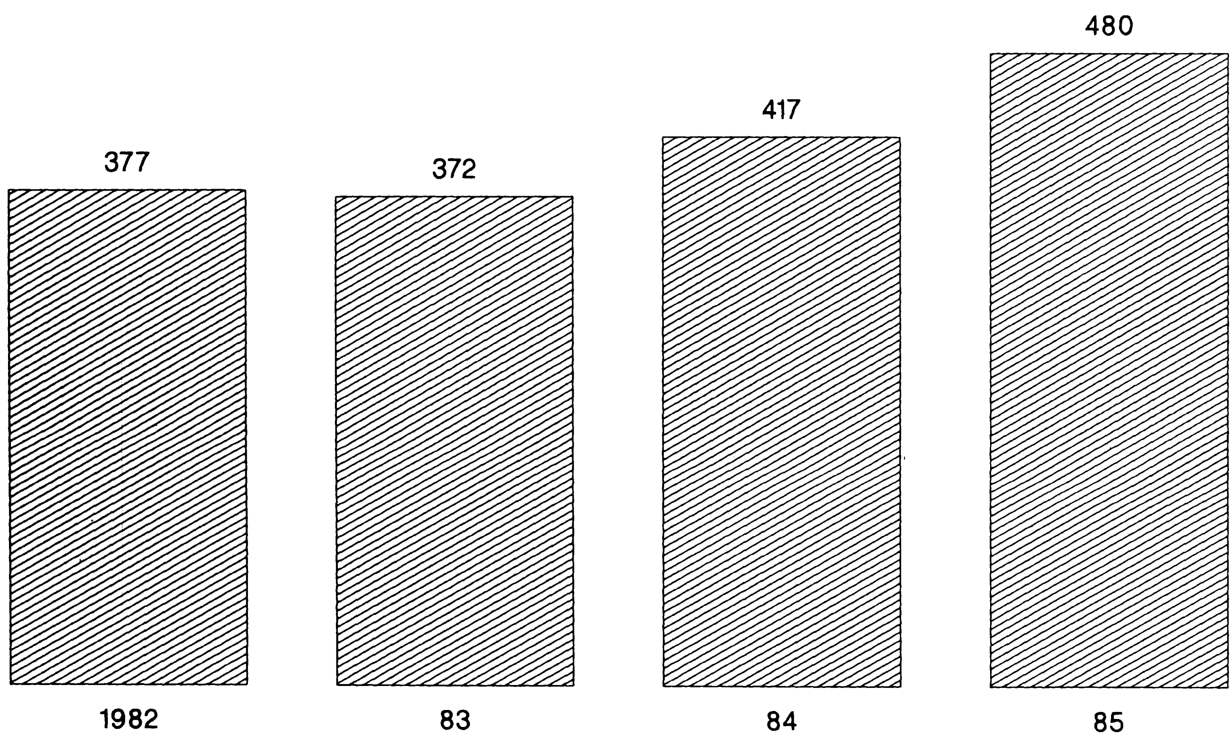


Source: (1,7,22)

reflecting increased small specialty wholesalers. Food marketing firms declined from nearly 479,000 to 445,000 (app. table 15). Data since the census indicate that the number of firms and establishments in food marketing continues to decline in 1986. These changes since the 1982 census will be confirmed in the 1987 census. The economic effect of this decline on farmers, consumers, and the food marketing system is unclear. Fewer firms service the food system, which is responsible for distributing 80 percent of U.S. agricultural output and accounting for one-tenth of GNP. However, this phenomenon is fairly widespread throughout American industry. In addition, a diminishing number of firms does not necessarily mean less competition. Food processing is essentially 49 different industries, ranging from meatpacking plants to pickling plants. The degree of concentration differs by industry. The four largest sausage processors accounted for 19 percent of shipments in the latest census, while the four largest chewing gum manufacturers accounted for 95 percent of shipments. For food retailing and wholesaling, concentration at the local level is of greater significance than national concentration. Moreover, within each of these three major industries industries, economies of scale (the right size to bring about the highest market efficiency) are unclear.

Direct foreign investment into the U.S. food marketing system reached $15 billion in 1985, with over $11 billion to food processing, slightly more than $1 billion to wholesaling, and about $3 billion to foodstores and restaurants (app. table 32). Foreign investment in 1985 exceeded 1984's level by $2.9 billion, due almost entirely to food processing. Investments in foreign countries by the U.S. food marketing system rose from $10.5 billion in 1984 to $11.8 billion in 1985, with U.S. food processors accounting for $9.3 billion; wholesalers, nearly $1 billion; and food stores and restaurants, $1.5 billion.

Figure 3
Number of Food Marketing Mergers



Source: (6).

Table 1--Food business mergers and acquisitions in the first 9 months of 1986

Category	Total number of acquisitions	Number of individual purchasers	Acquisition of similar business	Acquisition of firm outside food industry
Agricultural cooperatives	5 (10)	5 (10)	5 (10)	0
Bakers	12 (12)	8 (10)	10 (11)	1
Brewers	6 (4)	2 (3)	4 (4)	1
Brokers	19 (18)	19 (16)	19 (18)	0
Confectioners	5 (2)	5 (2)	5 (2)	0
Dairy processors	6 (13)	6 (9)	5 (13)	0
Diversified firms with interests in the food industry	34 (23)	20 (18)	0 0	12
Food processing firms	75 (73)	48 (38)	74 (65)	7
Foodservice vendors	25 (15)	14 (8)	25 (12)	0
Hotel and lodging companies	4 (8)	3 (5)	4 (8)	0
Meat packers	5 (4)	5 (3)	5 (4)	0
Nonfood packagers selling through supermarkets	3 (4)	2 (4)	2 (4)	3
Packaging suppliers	24 (19)	21 (13)	22 (19)	0
Poultry processors	8 (6)	7 (6)	8 (6)	0
Primary products companies	14 (8)	13 (8)	13 (8)	1
Restaurant and foodservice concerns	35 (42)	30 (27)	34 (42)	1
Retailers:				
Convenience	16 (17)	14 (15)	16 (14)	0
Supermarket	28 (14)	27 (12)	28 (11)	0
Other	9 (6)	8 (6)	0 0	0
Seafood processors	3 (2)	3 (2)	3 (2)	0
Snack food processors	1 (7)	1 (7)	1 (7)	0
Soft drink bottlers	11 (11)	6 (4)	11 (8)	2
Sugar refiners	2 (2)	2 (2)	2 (1)	0
Suppliers to the food industry	7 (17)	7 (16)	7 (15)	0
Unclassified and private investors	79 (91)	79 (91)	0 0	35
Wholesalers	33 (29)	22 (22)	30 (28)	3
Foreign firms buying U.S. firms:				
Canadian firms	10 (5)	8 (4)	0 0	2
Other foreign	37 (36)	32 (29)	0 0	9
Total	516 (498)	414 (392)	333 (318)	77

Note: Numbers in parentheses indicate number of transactions through the first 9 months of 1985.

Source: (5). Underscored numbers in parentheses refer to items in the references.

U.S. food processing industries have operated within a climate of wage and price stability in 1986, with a continuance of the heavy merger and divestiture activity of the preceding 2 years. New capital expenditures will likely reach an alltime high, and capacity utilization, which rose in 1985, appears to be headed for another increase in 1986. Food shipments for 1986 exceed those of 1985 by 6 percent, and the balance of trade deficit for processed foods appears to be below the 1985 high. Advertising expenditures for the first 3 months of 1986 are running 4 percent above the same period in 1985, while new product introductions and extensions will likely exceed 2,500 by the end of 1986.

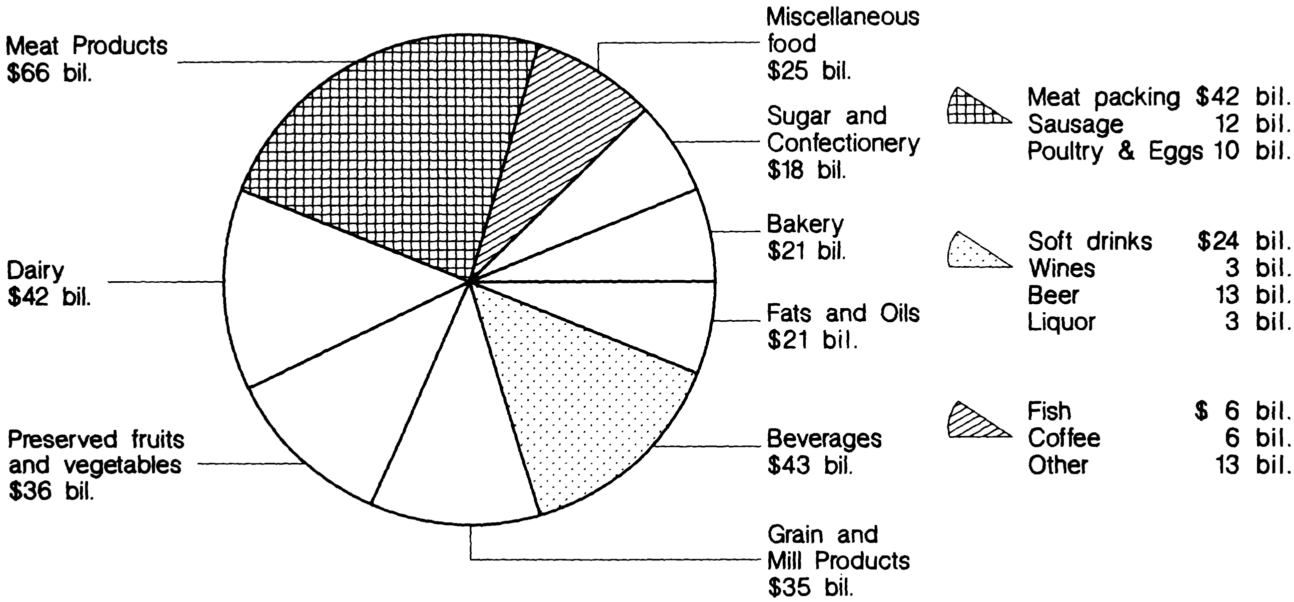
Growth

The 49 U.S. food processing industries, ranging from meatpackers to breweries, are projected to reach sales (value of shipments) of about $315 billion (app. table 7). This represents an increase of about 3 percent above the $307 billion of 1985 (fig. 4). However, growth varies among different food processing industries. For example, growth rates in 1985 ranged from a 4-percent drop for meatpacking to a 5-percent increase for beverages processing.

Food processors will likely purchase over $110 billion of raw materials in 1986, including $85 billion of U.S. agricultural products, $15 billion of imported foods, and $9 billion of seafood. Food processors likely will add $82 billion of value, up about 5 percent above the estimated 1985 value (table 2). This value added includes production and managerial labor, energy, profits, packaging,

Figure 4

Value of Food Processing Shipments, 1985[1]



1/ Percentages do not add due to rounding.
Source: *(55)*

advertising, interest, and other processing costs involved in changing raw agricultural products to food products. However, the degree of processing (value added) varies among the food processing industries. Foods with the lowest domestic farm value require the highest degree of processing (table 2). The meat, poultry, and fish processors will account for $12.3 billion, or 15 percent, of value added in 1986, although products in these industries account for 33 percent of consumer food expenditures. Dairy processors will account for 12 percent of value added; fruit and vegetable processors, 10 percent; and beverage processors, 25 percent.

Trade and Foreign Investment

U.S. food processing industries for 1986 appear to be headed for the fourth consecutive trade deficit (app. table 33). This year's projected deficit will be down slightly from the $5.7-billion deficit of 1985. If seafood processing is excluded, the deficit will be $2.4 billion. Exports by U.S. food processors normally account for about 5 percent of processed food shipments but nearly 40 percent of our agricultural exports. U.S. processed food generally runs a sharp deficit for such high-value foods as alcoholic beverages, confectionery products, and preserved fruits and vegetables. Partially offsetting this deficit are major trade surpluses for grain mill products (rice, flour, wet corn milling, prepared animal feeds) and most fats and oils. The decline in the value of the U.S. dollar should help expand export growth, but increased competition from other agriculture-producing countries and a corresponding decline in the exchange rates of many developing countries serve to offset the positive effects.

In recent years, U.S. Government and private agencies, including the U.S. Department of Agriculture (USDA), have been encouraging exports of high-value processed foods through trade shows, technical assistance, and promotion aid. However, many leading U.S. processing firms already have extensive overseas operations. Foreign investment by U.S. food processing firms rose from $8.2 billion in 1984 to $9.3 billion in 1985, with earned income of $1.5 billion (app. table 32).

Table 2--Value added to food processing, by industry

Industry	1972	1977	1982	1983	1984	1985	1986
	Billion dollars						
Meat, fish, and poultry	4.55	6.88	9.97	11.59	11.23	11.97	12.30
Dairy product	3.25	5.24	7.83	8.53	8.41	9.57	9.97
Grain and oilseed	7.17	10.33	14.84	17.73	17.10	18.05	18.78
Fruits and vegetables	2.80	4.23	6.19	7.09	6.90	7.51	7.79
Sugar and confectionery	1.93	2.85	4.10	4.84	4.65	4.85	4.90
Beverage	8.25	11.51	16.33	20.13	19.31	19.85	20.47
Other food	2.65	3.97	5.77	6.69	6.50	7.00	7.26
Total	30.60	45.01	65.03	76.60	74.10	78.80	81.47

Source: (30).

For example, CPC International has 85 plants in 47 foreign countries and 30 plants in the United States. Nearly 58 percent of the company's 1985 $4.2 billion in sales came from its foreign subsidiaries. Nearly 40 percent of H. J. Heinz' 1985 sales of $4 billion also came from abroad; the company has 27 domestic operations and 32 foreign.

Capital Expenditures and Capacity Utilization

Plant capacity utilization and capital expenditures in food processing are more stable than those in other industries because food demand is more stable. However, new plant and equipment expenditures in 1985 rose $1.5 billion to $10.3 billion, resulting in a 12-percent increase after adjusting for inflation (app. table 31). Food processors will spend nearly $10.5 billion on plants and equipment in 1986. These increases largely reflect the trend towards more automation in this capital-intensive industry. Some of this spending will also replace capacity with newer, more technologically advanced plants rather than net additions to capacity.

Whereas plant capacity utilization in most U.S. manufacturing industries showed no change in 1985, utilization in food processing industries increased. The capacity utilization rate in food processing industries rose from 76 percent during the fourth quarter 1984 to 79 percent during fourth quarter 1985 (app. table 31). Data for the first quarter of 1986 indicate a slight increase from first quarter 1985 levels. According to the Federal Reserve Board, an increase in capacity largely offset a 2.5-percent increase in output.

Costs

The economic climate of 1985 favored the food processing industries, and 1986 appears to be following a similar course. Farm prices in 1986 likely will average 5 percent below these of 1985, reflecting a 13-percent drop in crop prices and a 2-percent increase in livestock prices. Meatpackers are paying 2 percent less for beef, but 10 percent more for pork. Milk prices dropped 1 percent during the first 9 months of 1986 from year-earlier levels, while fruit prices fell 10 percent. Prices of imported foods rose 15 percent above the first 9 months of 1985 due to higher exchange rates and a sharp increase in coffee bean prices. Prices for processed food exports correspondingly dropped 14 percent, reflecting a decline in the value of the U.S. dollar against major currencies.

Labor costs also rose moderately during the first 6 months of 1986, continuing the trend of the mid-1980's. Employment in the processing of food and kindred products increased about 1 percent above the first 6 months of 1985 to roughly 1.6 million employees. Employment rose for nearly all industries except frozen foods and poultry. Average hourly earnings, which had been rising sharply during the early 1980's, continued their deceleration of the mid-1980's in the first 6 months of 1986. Wages for the first 6 months of 1986 averaged 1.5 percent above the same period a year earlier; thus, real earnings slightly declined.

Energy prices for the first 9 months of 1986 are averaging about 15 percent below prices in the same months of 1985. Packaging material prices also showed a 2-percent year-to-year increase. Interest rates have continued to decline throughout the year; short-term borrowing costs fell from 9.5 percent in mid-1985 to 8 percent in September 1986.

Advertising expenditures by food processors have been rising sharply, increasing nearly 11 percent between 1984 and 1985 to $4.8 billion for the seven media (app. table 29). In addition, the redeemed value of food manufacturers' coupon and newspaper advertising both rose about 13 percent. However, for the first 6 months of 1986, food processors' seven-media advertising advanced only 4 percent from the first half of 1985, rising from a level of $2.3 billion to $2.4 billion. The $100-million gain reflected a $50-million increase for dairy advertising due to a major promotion by the National Dairy Promotion Board. Advertising of convenience foods, wine, and beer also increased sharply, while bakery products, beverages, soft drinks, liquor, and confectionery declined.

Structure and Organization

Food manufacturing is one of the more concentrated industries within the U.S. manufacturing sector. In 1967, the 50 largest firms, the next 450 firms, and another 26,000 firms each produced one-third of total output. By 1982 (the latest census year), the 50 largest firms produced about 45 percent of all output, while the next 450 firms maintained a 33-percent output share. The remaining firms had fallen to 16,600, their share of output reduced to less than 25-percent of total output.

The degree of market concentration varies among the 49 basic food industries (table 3). Concentration data from the 1982 Census of Manufactures, released in early 1986, revealed diverse trends for both number of firms and concentration by industry (table 3). Specific findings were:

- Meat, poultry, and fish. Meat, poultry, and fish (excluding canned seafood) processing industries are among the least concentrated. The leading four firms in poultry, sausage, and fresh seafood processing accounted for 20 percent of shipment value in 1982, while meatpackers had a four-firm concentration ratio of around 30 percent. The number of companies declined rather sharply for all industries, except poultry processing, between 1977 and 1982.

- Dairy. The dairy industries are also among the least concentrated food processing industries at the national level. Because fluid milk markets tend to be localized, these figures are less meaningful. Nevertheless, between 1977 and 1982, four-firm concentration ratios dropped for every dairy industry, except that for condensed and evaporated milk. The leading four firms controlled less than one-sixth of all milk production, while the ratio was about one-third for cheese and condensed milk. The number of companies in each of the industries continues a long-term decline. Fluid milk companies fell from nearly 3,000 in 1967 to about 850 in 1982, while the number of butter companies fell from over 500 to about 40.

- Processed fruits and vegetables. Concentration varies sharply among the processed fruit and vegetable industries. The largest four firms control well over 50 percent of output for both canned specialties, and pickles, sauces, and salad dressings, but about 20 percent for canned fruits and vegetables and 27 percent for frozen fruits and vegetables. The number of companies declined for all industries, except for frozen fruits and vegetables, between 1977 and 1982.

- Grain mill products. These industries include some of the most concentrated among all food processors. The leading four breakfast cereal

Table 3--Share of shipment value for the four and eight largest food processing firms

Industry	1982 Total firms	1982 Share of shipment value: Four largest firms	1982 Share of shipment value: Eight largest firms	1977 Total firms	1977 Share of shipment value: Four largest firms	1977 Share of shipment value: Eight largest firms	1967 Total firms	1967 Share of shipment value: Four largest firms	1967 Share of shipment value: Eight largest firms
	Number	Percent	Percent	Number	Percent	Percent	Number	Percent	Percent
Meatpacking	1,658	29	43	2,404	19	37	2,529	26	38
Sausages	1,193	19	28	1,213	23	30	1,294	15	22
Poultry dressing	231	22	36	313	16	27	NA	NA	NA
Poultry and egg processing	136	22	35	124	21	35	NA	NA	NA
Butter	61	41	61	123	49	66	510	15	22
Cheese	575	34	47	660	35	48	891	44	51
Condensed and evaporated milk	132	35	50	167	30	46	179	41	56
Ice cream	482	22	34	567	28	40	713	33	43
Fluid milk	853	16	27	1,516	18	28	2,988	22	30
Canned specialties	171	62	77	172	63	77	150	69	83
Canned fruits and vegetables	514	21	35	648	22	35	930	34	52
Dehydrated fruits and vegetables	119	42	59	143	37	53	134	32	50
Pickles, sauces, and salad dressing	325	56	65	380	55	62	479	33	44
Frozen fruits and vegetables	195	27	42	187	22	40	495	36	55
Frozen specialties	318	38	54	330	40	55	NA	NA	NA
Flour and grain milling	251	40	60	301	33	54	438	30	46
Breakast cereals	32	86	na	32	89	98	30	88	97
Rice milling	49	47	75	47	51	76	54	46	68
Blended and prepared flour	91	58	74	111	51	69	126	68	82
Wet corn milling	25	74	94	24	63	89	32	68	89
Pet food	222	52	71	218	58	74	NA	NA	NA
Prepared feeds	1,245	20	30	1,435	22	30	NA	NA	NA
Breads and cakes	1,869	34	47	2,549	33	40	3,445	26	38
Cookies and crackers	269	59	71	263	59	68	286	59	70
Raw cane sugar	43	41	61	49	42	62	61	43	65
Cane sugar refining	19	65	91	27	63	90	22	59	82
Beet sugar	14	67	95	14	67	95	15	66	96
Confectionery	718	40	53	867	38	49	1,091	25	35
Chocolate and cocoa	77	75	89	47	73	88	27	77	89
Chewing gum	9	95	na	14	93	na	19	86	96
Cottonseed oil mills	47	51	70	62	45	62	91	42	60
Soybean oil mills	52	61	83	65	54	73	60	55	76
Vegetable oil mills	26	52	83	37	54	80	34	56	78
Animal and marine fats and oils	270	34	48	384	28	40	477	28	36
Shortening and cooking oils	79	43	60	66	43	63	63	43	67
Malt beverages	67	77	94	81	64	83	125	40	59
Malt	24	60	80	27	59	81	32	39	62
Wines, brandy	324	51	64	233	49	62	175	48	63
Distilled liquor	371	46	89	64	52	71	70	54	71
Bottled and canned soft drinks	1,236	14	23	1,758	15	22	3,057	13	20
Flavoring extracts and syrups	297	65	71	319	64	71	401	67	75
Canned or cured seafood	170	62	70	215	52	65	268	44	59
Fresh or frozen seafood	697	14	24	906	14	23	463	26	38
Roasted coffee	118	65	76	133	65	79	206	53	71
Manufactured ice	530	18	26	543	24	38	688	33	42
Macaroni and spaghetti	208	42	66	189	36	54	190	31	48
Other food preparations	1,746	32	40	1,872	28	36	1,824	24	35

NA = Not available.
Source: (45).

producers accounted for 86 percent of production in 1982, down slightly from 1977. The ratio for wet corn milling rose from 63 to 74 during the same period. However, the four leading pet food producers accounted for 52 percent of output in 1982 compared with 58 percent in 1977. Prepared feeds had a 20-percent four-firm concentration ratio in 1982, down from 22 percent in 1977.

- Bakery products. Like that for dairy products, much of the market for bakery products tends to be localized, thus lessening the significance of national concentration ratios. The leading firms accounted for about 33 percent of production for bread and cakes and about 60 percent for cookies and crackers. Neither showed much change from 1977. The number of bread and cake companies, however, dropped from 3,500 in 1967 to under 1,900 in 1982.

- Sugar products. The number of companies declined for every industry in this category, except those for beet sugar and chocolate and cocoa, both of which are highly concentrated. The number of chewing gum manufacturers fell from 14 to 9, while the four-firm concentration ratio rose from 93 to 95. Concentration also increased for cane sugar refineries and confectionery processors.

- Fats and oils. The number of firms for all fats and oils industries declined, except those for shortening and cooking oils, which rose from 66 to 79. Four-firm concentration remained constant at 43 for shortening and cooking oils but rose from 54 to 61 for soybean oil producers.

- Beverages. Among beverage processors, only soft drink bottlers had a low four-firm national concentration ratio--14 percent. The number of firms, however, in this largely local market industry dropped from over 3,000 in 1967 to about 1,200 in 1982. The number of breweries declined from 125 to 67 during that period, while four-firm concentration rose from 40 to 77. The number of wineries conversely rose from 175 to 324, while four-firm concentration also increased from 48 to 51.

- Others. The leading four firms accounted for nearly 66 percent of output for both flavoring extracts (largely soft drink syrups) and roasted coffee in 1982, and both industries continue to lose firms. Concentration among macaroni processors continues to rise, going from a ratio of 31 in 1967 to 42 in 1982.

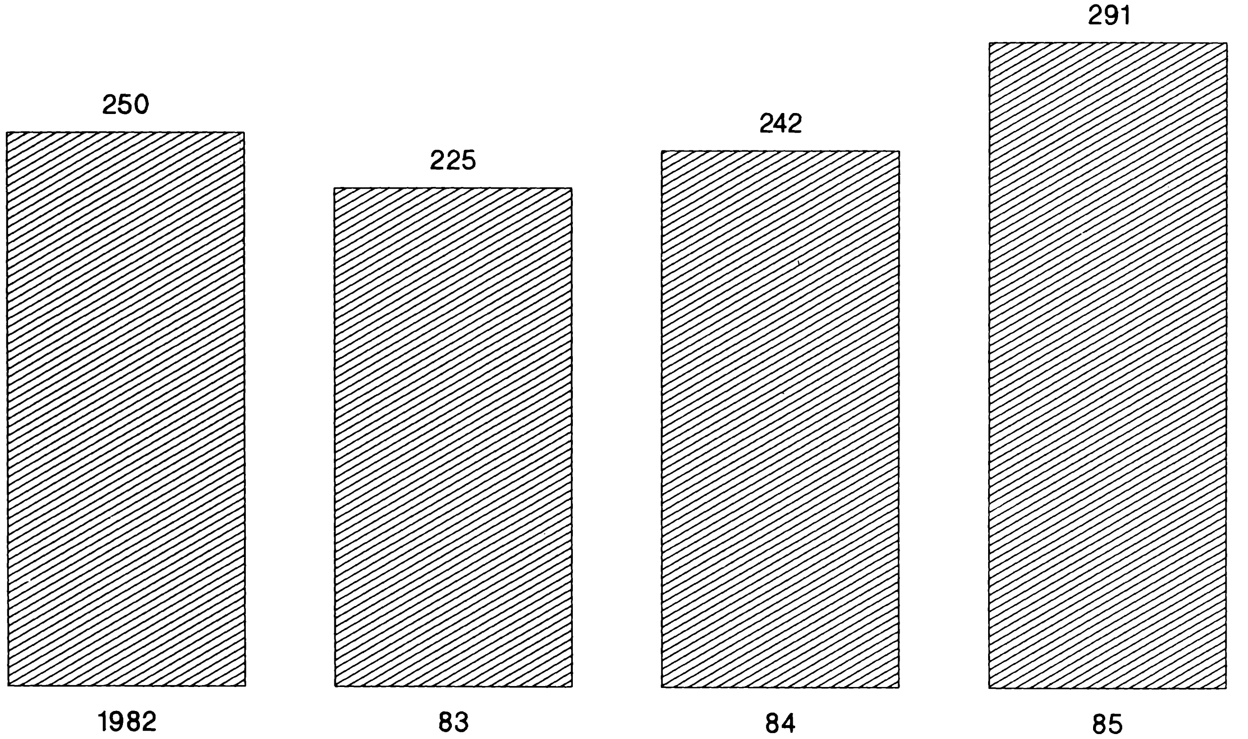
Mergers and Divestitures

The food manufacturing industries have engaged in much merger and divestiture activity over the past few years. The food and beverage industry ranked near the top of all manufacturing industries in the number of mergers in 1984 and 1985.

In 1985, 23 mergers with a price of $100 million or over took place in food manufacturing. Among these were the three largest mergers in food processing history: Philip Morris Companies bought General Foods; Kohlberg, Kravis, Roberts, and Company bought Beatrice Companies; and R. J. Reynolds Industries, Inc., bought Nabisco. The 23 mergers had a total financial consideration of nearly $25 billion.

According to the Food Institute, 291 mergers took place in food processing in 1985 (fig. 5). Of these, the acquiring company was a U.S. food manufacturing company in over 212 mergers. The acquiring company was outside U.S. food manufacturing in 79 cases (table 4). Food processing also had 103 divestitures, illustrating that all mergers are not permanent. Because some firms assumed

Figure 5
Number of Food Processing Mergers, 1985



Source: (6).

Table 4--Mergers and divestitures in food manufacturing

Year	Acquiring company: U.S. food manufacturing company	Acquiring company: Company outside U.S. food manufacturing	Acquiring company: Total	Divestitures
		Number		
1982	165	85	250	120
1983	174	51	225	85
1984	178	64	242	100
1985	212	79	291	103

Source: (6).

heavy debt loads to finance acquisitions, they are now selling assets to raise cash for debt repayment. In addition, a number of firms are restructuring internally after acquisitions. Dart and Kraft, which merged in 1981, recently announced that they will again separate.

Why the merger interest in a slow growth industry? Food processing industries are more stable than most industries. Consumers tend to keep food expenditures steady during recessions. Thus, profits, employment, and capital expenditures in food manufacturing are steadier than in other industries, falling less during recessions and rising less during expansions.

This stability can benefit firms outside of food manufacturing, especially those in more cyclical industries. Firms in related industries, such as the tobacco industry, with established marketing channels, can increase their clout for gaining scarce shelf space by merging with food companies. Because brand names are so important, firms can benefit more from buying existing product lines than from penetrating the market with costly new products. Mergers can improve market share and economies of scale of firms within the same type of food manufacturing (for example, two meatpackers).

However, antitrust authorities usually block large horizontal mergers between leading firms that may lessen competition. For example, the Federal Trade Commission (FTC) has recently challenged proposed mergers between Coca-Cola and Dr Pepper and between Pepsi and Seven-Up. Many smaller firms join in horizontal mergers, particularly in local industries, such as bakery products or dairy, to achieve greater size economies of production and distribution.

Merger activity over the past few years has been widespread throughout American industry. About 3,000 mergers took place in 1985, the highest in 12 years. Three factors have encouraged mergers throughout American industry, including food manufacturing: availability of funds, policy initiatives toward a more free market approach, and the attraction of foreign buyers. First, deregulation in the early 1980's provided a source of more funding, as did the creation of "junk" bonds, a higher risk, lower quality type security. In addition, tax laws favor borrowing for acquisition purposes. Second, public policy has encouraged a free market approach by stressing efficiency rather than size and by allowing vertical combinations between suppliers and wholesalers. Also, the merger guidelines of the U.S. Department of Justice raised the level of allowable market concentration. Third, foreign buyers, encouraged by the weakening of the U.S. dollar and improved economic conditions in Europe, have been more active in U.S. acquisitions. Food processing ranked near the top as a target of foreign interest in 1984 and 1985.

Merger activity in the first 9 months of 1986 appeared to be keeping up with the brisk level of 1985, but the number of mega-mergers appeared to have subsided, reflecting reduced merger possibilities following the heavy activity of 1984-85. Many firms involved in mergers are reassessing marketing policies and restructuring internally.

The number of food manufacturing establishments has been declining along with the number of companies. The 1982 census showed 22,130 establishments in the 49 food processing industries, a drop of about 5,500 from those of 1967 (app. table 8). The decline reflected a drop in about 40 of the 49 food processing industries. The number of establishments increased in industries that process fruits and vegetables, wines and brandies, flavoring extracts, chocolate and cocoa, and shortening and cooking oils. The number of local market establishments, such as those for dairy and bakery products, declined the most rapidly.

The number of food processing establishments covered by unemployment insurance fell from 24,180 in 1982 to 23,600 in 1985, according to the Bureau of Labor Statistics (BLS) (app. table 9).

Performance

The food processing industries of 1986 are characterized by stable prices, higher profits, and the rapid introduction of new products. First, stable farm prices and slowly rising marketing costs in 1986 have been translated into moderate price increases at wholesale. The Producer Price Index (PPI) for processed food and feed for the first 6 months of 1986 averaged 2.5 percent above the first 6 months of 1985. Second, after-tax profits for food and tobacco processing firms as a share of sales appear to have remained about the same between the first half of 1986 and first half of 1985 (app. table 28).

Third, new product introduction has continued at a heavy pace. About 1,800 new products were introduced in 1983, nearly 2,000 in 1984, and over 2,200 in 1985. For the first 7 months of 1986, product introductions were about 15 percent above the 1,100 of the same period in 1985. Beverages, breakfast cereals, candy and gum, frozen foods, and health and beauty aids continue to be leaders in new product introduction, but new processed meat products rose sharply in 1985 and 1986.

The BLS labor productivity index (output per employee hour) continues increasing for a number of food processing industries. Sharp increases in output of soft drinks, beer, sugar, dairies, and processed fruits and vegetables likely reflect increases in capital per worker and added employee skills (app. table 26). The stability of food manufacturing production also contributes to steady productivity growth. Capital expenditures in these industries have risen at a moderately high rate, while the number of employees has stayed about the same.

FOOD WHOLESALING

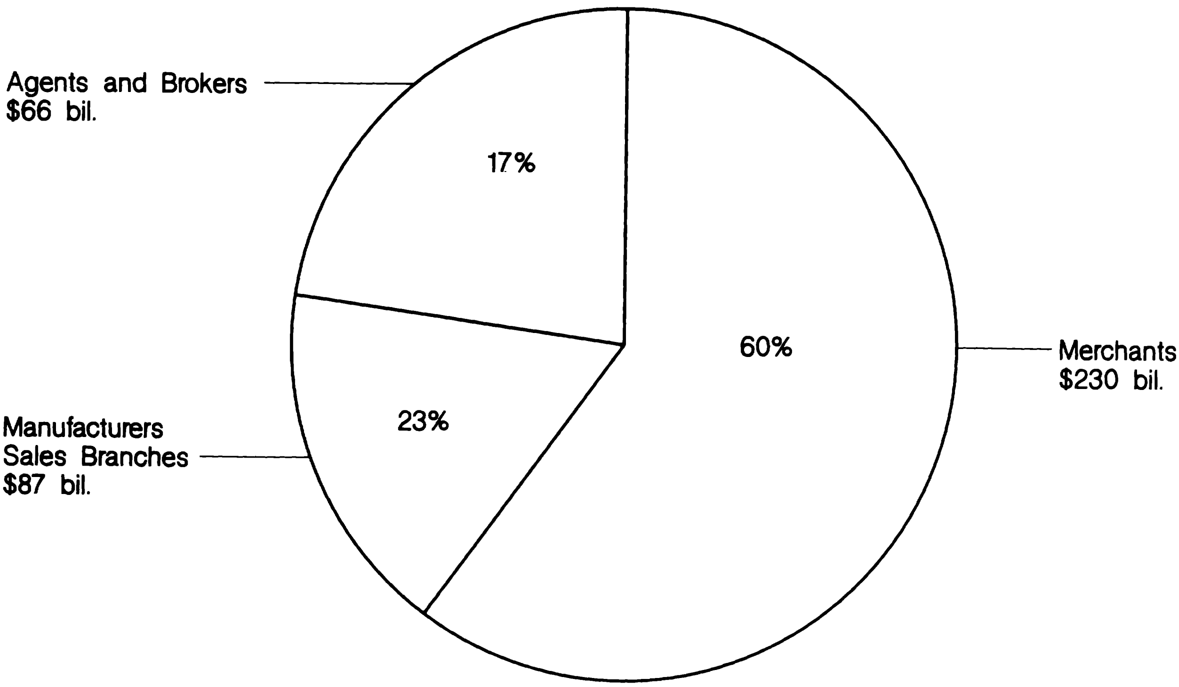
Mergers in the food wholesaling industry continue with the largest firms buying other large distributors, thus positioning the buyers in new regions. This pattern is in contrast to the localized acquisitions of the late 1970's and early 1980's. National foodservice distributors emerged in the early 1980's and continue to increase in number. Sales concentration continues to rise in both national and local wholesale markets. With food as one of the major product lines, wholesale clubs are growing and serving small businesses and group members, signaling possible far-reaching changes in distribution channels. Wholesale food sales continue to rise, and wholesale food firms sustain their profitability.

Sales

Wholesale food volume will probably reach $383 billion in 1986 (fig. 6). Through the third quarter of 1986, wholesale merchants' sales alone were running at an annual rate of $230 billion. If this growth continues throughout the year, as is likely, wholesale sales originating with merchants will increase 6 percent from those of 1985. Sales of manufacturers' sales offices and brokers, the other major wholesale groups, also continue to rise, and should add $153 billion in 1986.

In 1982, manufacturers distributed 22 percent of groceries and related products through wholesale channels, a share that remained fairly constant since 1967 (table 5). Sales from manufacturers' branches grew somewhat faster during 1967-82 than the total wholesale average as manufacturers added local offices and increased shipments in response to expanded demand.

Figure 6
Wholesale Sales by Sector, 1986 1/



1/ ERS projections.
Source: (48, 52).

Table 5--Wholesale food sales, by type of wholesaler

Type of wholesaler	1967	1972	1977	1982	1983	1984	1985	1986
	Billion dollars							
Merchants	43.3	64.0	111.6	174.7	190.3	208.9	216.0	1/229.7
Manufacturers' sales branches	15.1	21.7	41.6	63.9	1/69.0	1/74.5	1/80.4	1/86.9
Agents and brokers	15.9	20.6	29.7	50.0	1/53.5	1/57.2	1/61.2	1/65.5
Total	74.3	106.3	182.9	288.6	312.8	340.6	357.6	1/382.1

1/ ERS estimates.

Sources: (48, 52).

Sales originating in manufacturers' sales branches grew 8 percent annually during 1967-82. In the absence of sales data on these units since 1982, interim sales estimates are based on the assumed continuance of the long-term growth rate. On that basis, 1986 sales are estimated to reach $86.9 billion.

Brokers accounted for 17 percent of wholesale food sales in 1982, reversing a decline in share from a high of 21 percent in 1967. The shift by manufacturers from sales through brokers to sales through their own facilities caused the decline. Brokers' services are often speedier and more economical than than those of manufacturers' own sales forces. In addition, brokerages are local businesses that have up-to-date market information from dealing with several manufacturers and handling an array of product lines. Because of their flexibility and adaptability, brokers will continue to be important factors in the wholesale grocery trade.

Average brokers' sales rose 7 percent annually in 1967-82. Based on this long-term growth, brokers' sales are estimated to reach $65.5 billion in 1986.

Structure and Organization

There were 64 mergers and acquisitions in 1985, a 73-percent increase from those of 1984 (app. table 17). Large wholesale distributors are acquiring other large wholesale firms and moving into new regions. This pattern is in contrast to the localized acquisitions of the late 1970's and early 1980's. Super Valu, the largest U.S. wholesale grocery distributor, expanded to the Pacific coast by purchasing the West Coast Grocery Company in 1985. Between 1982 and 1986, this industry leader also entered St. Louis and Milwaukee in the Midwest and Albuquerque and Denver in the West. Second-ranked Fleming Companies similarly strengthened its Western operation with acquisitions of United Grocers of California and Associated Grocers of Arizona, both large, established regional cooperative wholesale firms. Third-ranked Wetterau moved South and East with acquisition of the Creasy Company of Louisville and Cressey, Dockham, and Company of Massachusetts. Nash-Finch acquired the M. H. McLean distribution firm in North Carolina, thus moving into Southern markets.

Sales and earnings of the leaders have undoubtedly grown from acquisitions of high-volume regional distributors. For example, Associated Grocers of Arizona's merger with Fleming added over $500 million to Fleming's sales.

Corporate stores also boost sales and earnings of parent firms. A striking example is Nash-Finch. Its retail stores accounted for around 42 percent of its total revenues in 1984, although these stores were only about 5 percent of the total served by the firm (26). Retail stores are long-term profit centers for some leading wholesale merchants, a factor that distinguishes the present involvement of these wholesale merchants with retail stores from that of earlier times when wholesalers passed on acquired units to independent operators.

National foodservice distributors emerged in the early 1980's and continue to increase in number. These national firms cater to restaurants, fast food outlets, airlines, institutions, and other providers of away-from-home feeding. They have grown by merging with other firms and by garnering a large share of an expanding market for food away from home. The leaders are the Sysco Corporation, CFS Continental, PYA Monarch, Rykoff-Sexton, and Kraft. Operating from 185 locations, these five firms had sales of $7.9 billion in 1985 (5). Unlike their large counterparts that primarily service retail supermarkets, large national foodservice distributors face each other in few metropolitan markets, and thus have greater expansion potential. Most foodservice distributors are still small operators who supply small, local customers.

Sales concentration continues to rise in both national and local wholesale markets. The strength and pervasiveness of the change in market concentration increases public concern because concentration can affect market performance. This concern is reflected in speculation about the plight of small retailers from the disappearance of the small distributors that formerly served them and about the possible adverse effects of mergers of regional wholesale firms with large national operations. The Economic Research Service (ERS) analyzed changes in sales concentration, particularly the role of mergers and entry in local markets (12). This analysis found that new entry significantly reduced average market shares of leading local firms, while entry by acquisition produced no perceptible change in market shares of leading firms. Concentration was as likely to rise in markets with low prior concentration as with high prior concentration. That is, large market shares in a prior period did not necessarily carry over to a later period. Further, sales concentration declined significantly in expanding markets.

Wholesale clubs, with food as one of the major product lines, are growing and serving small businesses and group members, signaling possible far-reaching changes in distribution channels. The first clubs appeared in 1976. By mid-1986, 18 firms operated 170 units (table 6). With estimated sales volume of $5 billion in 1985, these clubs' sales are minor compared with volume of over $300 billion moving through wholesale channels. However, they fill certain voids in the food marketing system and are likely to grow in importance where they supply special needs. For example, small foodservice operations and so-called "mom and pop" grocers, with their small orders and high servicing costs, are markets uniquely suited to service by wholesale clubs. Wholesale club outlets are patronized most frequently by foodservice operators with sales under $100,000. Because these clubs have no minimum purchase orders, small foodservice operations and small grocery stores have an economical alternative to full-service distributors who impose minimums. Wholesale clubs also serve as secondary suppliers of independent supermarkets, the primary suppliers of which are large, general line distributors. In addition, they sell food, appliances, hardware, TV's and electronic equipment, clothing, and furniture to individuals whose employment by banks, credit unions, public utilities, and government agencies qualifies them for club membership.

Another development underscores the growing importance of wholesale clubs: large firms, such as Kroger, Wal-Mart, and Zayre, have recently entered the field, primarily by acquiring existing clubs. This is a significant development as these firms have the requisite resources for acquiring clubs and for undertaking the risks in experimenting with various formats. The comparatively small sales volume originating in these clubs masks their potential to affect food distribution.

Performance

Wholesale food firms sustain a solid profitability that embraces the range of wholesale businesses. For example, general line wholesalers had before-tax profits ranging between 14.6 percent (1983-84) and 18 percent (1982-83) of net worth (app. table 28). These rates probably reflect somewhat above-average firms and, to that extent, overstate industry profitability. Moreover, high returns could mean undercapitalized firms as could low returns reflect highly capitalized, but conservatively managed, operations. Finally, sampling errors

Table 6--Membership wholesale clubs

Item	As of July 1986					Expected as of December	
	Northeast	South	Central	West	Total	1986 1/	1987 1/
					Number		
Sam's Wholesale Club (Wal-Mart Stores, Inc.), Bentonville, AR	0	31	4	2	37	45	2/
The Price Company, San Diego, CA	0	3	0	22	25	30	40
Costco Wholesale Club, Seattle, WA	0	5	2	14	3/21	35	50
PACE Membership Warehouse, Denver, CO	1	13	2	4	20	25	35-90
Super Saver Wholesale Warehouse Club (A. Howard Wholesale), Monroe, LA	0	13	1	0	14	21	36
BJ's Wholesale Club (Zayre Corporation) Natrick, MA	8	1	3	0	12	15	25-27
The Warehouse Club (Pay 'N Save Corporation) Skokie, IL	0	0	9	0	9	14	19-21
The Wholesale Club, Indianapolis, IN	0	0	6	0	6	11	18-20
Value Club (Southwest Merchandising), San Antonio, TX	0	6	0	0	6	6	6
Price Saver's Wholesale Club (The Kroger Company), Salt Lake City, UT	0	0	0	5	5	9	2/
Makro Self-Service Wholesale (SHV Holding) Cincinnati, OH	1	2	1	0	4	4	2/
Buyer's Club, Aurora, CO	0	0	0	2	2	3	12
Club Wholesale (Elixir Industries), Boise, ID	0	0	0	2	2	2	5
D-Mart Wholesale Club, Salt Lake City, UT	0	0	0	2	2	2	2/
Members Warehouse, Winston-Salem, NC	0	2	0	0	2	3	7
Wholesale Plus, Plantation, FL	0	1	0	0	1	1	1
American Wholesale Club, Richardson, TX	0	1	0	0	1	1	2/
Save Club, Concord, CA	0	0	0	1	1	1	2/
Total	10	78	28	54	170	228	2/

1/ Company estimate as of July 1986.
2/ No estimate available.
3/ Costco operates two clubs in Canada, one in Alberta and one in British Columbia.

and likely measurement errors associated with these estimates are unknown. Even with these caveats, wholesale firms have sustained a remarkable profitability, and high profit levels probably will continue as long as the conditions that produced them prevail.

Wholesale profits remain high for a number of reasons: energy costs, particularly that of gasoline, have fallen from the peaks of the 1970's. Distributors' transportation costs, of which diesel fuel and gasoline are large parts, are exceeded only by their outlays for labor. Following a rapid rise in hourly earnings of wholesale workers in the late 1970's and early 1980's, earnings have now leveled off (app. table 24). The adoption of work standards in distribution centers is spreading. Electronic ordering and billing, exemplified in the Uniform Communication Standard (UCS), is increasingly accepted. A burgeoning demand has expanded real sales dramatically. In 1977-82, real sales rose at an annual compounded rate slightly under 3 percent compared with a 7-percent rate for 1982-85. Thus, the confluence of smaller cost increases, improved efficiency, and growing demand contributes to the profit performance of the industry's firms.

FOOD RETAILING

Real growth rates, traditionally low and stable in the food retailing industry, have increased significantly, amounting to 2.5 percent in both 1985 and 1986. Real foodstore sales grew more rapidly than real foodservice sales in 1985 and have grown at about the same rate in 1986. Real foodstore sales historically have increased only half as fast as real foodservice sales.

Supermarket sales continued to increase in 1985, reaching $202.6 billion. Food retailers are building larger stores to accommodate expanded deli, bakery, seafood, and other service departments. A greater variety of nonfoods has also contributed to the sales growth of supermarkets as many food retailers move toward the one-stop shopping concept. Convenience stores continue to seek growth opportunities and now account for over 12 percent of grocery store sales.

Profits, measured as a percentage of stockholders' equity, averaged 13.8 percent in 1985, down from 16.2 percent in 1984. This decline, despite favorable real sales growth, may be partly due to heightened competition from low-cost warehouse style supermarkets. Merger activity retrenched from the very high levels of 1984. And, average hourly earnings fell in 1985, reflecting retailers' efforts to lower labor costs.

Growth

U.S. foodstores sales, including food and nonfood items, are projected to reach $295 billion in 1986, up nearly 4.5 percent in current dollars over those of 1985. In real dollars, the 1986 increase is estimated at 2.0-2.5 percent, considerably above the population growth rate. Foodstore sales also grew rapidly in 1985, increasing 4.5 percent over those of 1984 in current dollars and 2.5 percent in real dollars.

What accounts for the above-average growth in real sales of foodstores during 1985-86? Three factors may help explain the recent growth in foodstore sales. First, the typical supermarket's size has increased nearly 30 percent since 1980, according to the Food Marketing Institute. Much of this increased space has been allocated to nonfoods. Broader product lines of household supplies, floral departments, health and beauty aids, automotive supplies, greeting cards, clothing, hardware, and other general merchandise account for an increasing share of store sales.

Second, supermarkets and convenience stores are competing more with restaurants for the foodservice dollar. Retailers are aggressively seeking fast food business by offering an increasing variety of hot and cold prepared foods from service delis, soup bars, salad bars, service bakeries, sit-down eating areas, and even drive-through deli windows. Some supermarkets are hiring chefs to run their deli operations. Convenience stores also are emphasizing food service. Many convenience stores are expanding their selection of sandwiches, pastries, and deli items prepared in-store or in centralized commissaries. Some convenience stores are installing microwave ovens, grills, and other foodservice equipment. Others are developing licensing agreements that will allow them to sell items produced by well-known fast food chains. For example, the 7-Eleven chain is experimenting with agreements to sell Hardees' sandwiches and Church's Fried Chicken products in some of its convenience stores. In addition, some convenience store chains are introducing fast food sandwiches and pizza under their own brand name.

Third, food manufacturers are providing retailers improved quality, upscale packaged dinners, entrees, soups, and side dishes packaged in attractive serving containers that can go directly from the microwave oven to the table. Eliminating cooking utensils and cleanup chores makes these products an even closer substitute to eating out.

What does all this mean? The last two factors are helping to blur the at-home and away-from-home markets for food. Consumers are searching for convenient, inexpensive, quality meals to match their busy lifestyles. Apparently they are increasingly purchasing these meals from supermarkets and convenience stores as well as from restaurants and cafeterias. Also, food manufacturers and foodservice suppliers need to target the commissaries and in-store preparation facilities run by supermarkets and convenience stores as a growing market.

As evidence of this blurring of at-home and away-from-home markets, 1985 was the first nonrecession year since the 1950's that at-home food expenditures have outpaced away-from-home expenditures after adjusting for inflation. As a result, the at-home share of the food market remained essentially unchanged in 1985 from 1984's 57 percent. The at-home share of food expenditures declined steadily from 73 percent in 1960 to 57 percent in 1984, where it has remained for nearly 2 years. The away-from-home market share is expected to increase but at a much slower pace than it did before, with frequent pauses and even some backsliding.

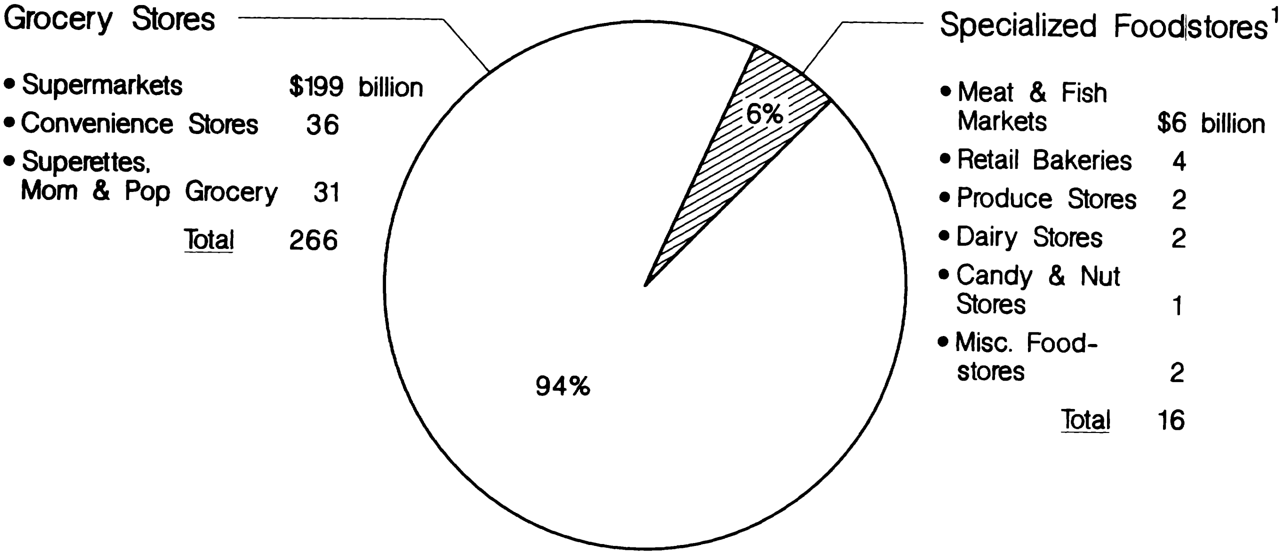
Structure and Organization

The basic segments of the food retailing industry are grocery stores and specialized foodstores. Together, they account for all foodstores, retail outlets having at least 50 percent of sales in food products intended for off-premise consumption (fig. 7).

The number of foodstores is declining, down 11,000 stores between 1977 and 1982, the most recent census year (47). This trend is expected to continue, with foodstores numbering about 237,000 in 1986 (table 7). Although multistore food retailers are growing, single-store retailers, accounting for about 70 percent

Figure 7

Foodstore Sales by Sector, 1985



1/ Parts do not add to total due to rounding.
Source: (4)

Table 7--Number of foodstores

Year	Total	Grocery stores: Total	Grocery stores: Share of total foodstores	Specialized foodstores: Total	Specialized foodstores: Share of total foodstores
	Number	Number	Percent	Number	Percent
1958	355,508	259,796	73.1	95,712	26.9
1963	319,433	244,838	76.6	74,595	23.4
1967	294,243	218,130	74.1	76,113	25.9
1972	267,352	194,346	72.7	73,006	27.3
1977	251,971	179,346	71.2	72,625	28.8
1982	241,737	168,041	69.5	73,696	30.5
1983 1/	240,528	167,615	69.7	72,914	30.3
1984 1/	239,326	167,186	69.9	72.140	30.1
1985 1/	238,129	166,755	70.0	71,347	30.0
1986 1/	236,938	166,322	70.2	70,616	29.8

1/ = ERS projection.

Source: (47).

of all foodstores in 1977, are declining at the rate of almost 2 percent per year (1977-82). Although much of the single-store retailer attrition is due to exit from the industry, some of these retailers grow to become multistore operators.

Grocery stores accounted for 70 percent of all foodstores in 1986. Supermarket (larger grocery stores) numbers increased 4 percent between 1982 and 1985 to 27,266 stores (table 8). However, the number of supermarkets is still below peak levels reached in 1977 as smaller conventional stores are replaced by larger format supermarkets. The remaining superettes, smaller grocery stores, and convenience stores totaled 139,489, or 83.6 percent of all grocery stores in 1985 (table 9).

Specialized foodstores, including bakeries, meat markets, produce markets, and dairy stores, account for the remaining 30 percent of foodstores, numbering about 70,616 in 1986. Specialized foodstores declined slightly between 1982 and 1986, indicating continued slow or negative growth prospects. With greater emphasis on one-stop shopping, specialized stores are losing customers to supermarkets.

Sales by Segment

Grocery store sales accounted for 94.5 percent of foodstore sales in 1986, with specialized stores accounting for the remaining 5.5 percent (table 10). Specialized foodstore sales decreased 5.5 percent in 1985 to $16.1 billion.

The share of grocery store sales held by chain stores in 1985 remained at peak levels reached in 1982 (table 11). The chain store share of sales steadily

Table 8--Number and sales of supermarkets 1/

Year	Minimum annual sales needed to classify as a supermarket	Number	Sales	Share of grocery stores: Number	Share of grocery stores: Sales
	1,000 dollars	Number	Million dollars	----Percent----	
1958	747.0	15,282	23,562	5.9	53.9
1963	762.9	21,167	31,484	8.6	59.9
1967	825.7	23,808	43,433	10.9	66.7
1972	1,000.0	27,231	64,960	14.0	69.6
1977	1,545.3	30,831	113,111	17.2	75.0
1982	2,313.2	26,640	175,655	14.4	74.5
1984	2,451.2	26,947	194,403	16.4	75.3
1985	2,502.4	27,266	202,583	16.7	74.6

1/ To be classified as a supermarket, a grocery store had to generate annual sales of at least $1 million in 1972; other years calculated using a price index of prices of all products sold in grocery stores. Sales include sales taxes, which are excluded from census figures after 1972.

rose up to 1982. Independent food retailers have not only survived but prospered during the 1980's despite concerns by analysts about their long-term viability and, particularly, their access to suitable store locations. The exit of some chain stores from entire markets and the transition from smaller to larger supermarkets have contributed to the supply of sites available to

Table 9--Number and sales of grocery stores, 1985 1/

Grocery store type	Number: Total	Number: Share of total	Sales: Total	Sales: Share of total
	Number	Percent	Billion dollars	Percent
All grocery stores	166,755	100.0	271.4	100.0
Supermarkets 2/	27,266	16.4	202.6	74.6
Smaller grocery stores including superettes and convenience stores	139,489	83.6	68.8	25.4

1/ Sales include sales taxes, which are excluded from census figures after 1972.
2/ Grocery stores with minimum annual sales of $2,502,400 or more in 1985.

Source: (54).

Table 10--Foodstore sales

Year	Foodstore sales	Grocery stores: Sales	Grocery stores: Share of foodstore sales	Specialized foodstores: Sales	Specialized foodstores: Share of foodstore sales
	---Million dollars---		Percent	Million dollars	Percent
1958	50,263	43,696	86.9	6,567	13.1
1963	57,254	52,566	91.8	4,688	8.2
1967	69,371	64,215	92.6	5,156	7.4
1972	99,035	92,273	93.2	6,762	6.8
1977	157,941	147,759	93.6	10,182	6.4
1982	245,346	230,142	93.8	15,204	6.2
1983	254,878	239,054	93.8	15,824	6.2
1984	269,959	252,936	93.7	17,023	6.3
1985	282,198	266,103	94.3	16,095	5.7
1986 1/	294,615	278,359	94.5	16,256	5.5

1/ ERS projection.

Sources: (47, 54).

independent retailers. Independent food retailers may have slowed the sales inroads made by chainstores. Possible reasons for the success of independents include:

- Their affiliation with full-service wholesalers able to equal the procurement and other integration advantages of chains.

- Their growth through the use of large supermarket formats, such as the superwarehouse store.

Supermarkets (grocery stores with sales of $2.5 million or more in 1985) decreased their share of grocery store sales slightly in 1985 to 74.6 percent, down 0.7 percent from those of 1984. The sales share of supermarkets would have been greater had gasoline sales by grocery stores (primarily convenience stores) been excluded from total grocery store sales (table 8).

Supermarket Formats

The trend toward larger supermarkets continues, as indicated by the increasing importance of the superstore, combination store, and superwarehouse store formats. At the same time, conventional-sized supermarkets are declining as a share of total supermarkets and as a share of total supermarket sales (table 12).

The number of superstores more than doubled between 1980 and 1984, while combination food and drug formats tripled in number, although from a smaller base. The number of superwarehouse stores, including the new hypermarket format, also increased. The hypermarket is a one-stop shopping supermarket that brings together a broad variety of food and nonfood products in a single store of about 120,000 square feet. Conventional stores, the largest sales segment, decreased from 73 percent of supermarket sales in 1980 to 50 percent in 1984.

The importance of superstores to supermarket sales increased 10 percentage points over the 4-year period to 28 percent. The sales share of warehouse and limited assortment supermarkets grew almost 9 percentage points in 1984.

Food retailers continue to experiment and synthesize successful elements of supermarket formats with the result that distinctions among formats are becoming less clear. For example, the variety of products and services offered by

Table 11--Chain stores' share of grocery store sales

Chain type	1958	1963	1967	1972	1977	1982	1985
				Percent			
Supermarket	41.2	43.7	46.3	48.9	46.9	NA	NA
Other	2.8	3.3	5.1	7.0	12.0	NA	NA
Total	44.0	47.0	51.4	55.9	58.9	60.0	59.8

NA = Not available.

superstores and combination stores are often so similar that from the customer's viewpoint, there are no differences. The instore pharmacy, a characteristic of the combination store, has been introduced to superwarehouse stores, such as Cub supermarkets in Atlanta and Minnesota. And the low-margin strategy of warehouse stores has been applied to the grocery products of very large combination stores with extensive service and specialty departments, such as Randall's Food Markets in Houston (27).

As warehouse stores have attempted to broaden their appeal through expanded product variety and service departments, they have become vulnerable to competitors that emphasize rock bottom prices, such as the wholesale club/cash and carry outlets. These stores originally served businesses and emphasized volume purchases, such as large-sized or case-lot products, on a cash-and-carry basis. In recent years, the wholesale club stores have extended participation to the public through membership fees or through affiliation with a credit union or similar consumer group. Although food products are the largest product category, variety is limited to about 4,000 nonperishable items, often sold in larger, institutional packages, multipacks, or by the case. Other major categories include clothing and linen, housewares and hardware, and electronics and appliances.

Wholesale club stores have grown rapidly since their inception in 1976. By yearend 1986, sales are expected to exceed $48 billion through 220 outlets (see "Food Wholesaling" for more detail).

Aggregate and Local Market Concentration

Aggregate concentration measures the sales of the top 4, 8, and 20 food retailers relative to the Nation's total grocery store sales. Because none of these top retailers operates in all regions of the country, such measures of market share are less comparable than for industries serving national markets, such as many of the food manufacturing industries. Yet, the aggregate concentration measure is a useful indicator of the importance of the largest firms among all food retailers.

Table 12--Number and sales share of supermarket formats

Store format	Number 1980	Number 1984	Sales 1980	Sales 1984
	Percent			
Supermarkets	100.0	100.0	100.0	100.0
Conventional	85.0	65.5	73.1	49.8
Superstore	8.9	18.2	17.7	27.6
Combination	.9	3.5	4.0	7.8
Superwarehouse	.5	.7	1.0	2.0
Warehouse/ limited assortment	4.7	12.1	4.2	12.8

Source: (62).

The sales share of the top 4, 8, and 20 retailers increased in 1985 over 1982 (table 13) (see appendix table 13 for a list of the top 20 grocery store chains). The sales share of the top 4 and 8 firms increased to 19.0 percent and 25.2 percent, respectively, in 1985 which was about the same level as 1967. The top 20 firms' share increased to 35.5 percent following a long period of stability. The increase in concentration was due in part to mergers among these largest firms.

The rate of change in aggregate concentration may be of greater importance than its actual magnitude. Increases in concentration during periods of high merger, acquisition, and divestiture activity may indicate greater consolidation within the industry. Divestitures or "spinoffs" of assets may often mitigate the concentration effects of mergers and acquisitions.

Local market concentration measures the sales share of the largest firms within a market area. The level of market concentration is one indicator of the degree of competitiveness in the marketplace. Changes in market concentration indicate the extent of restructuring in the market and has implications for future competitiveness.

Data from the 1982 census were used to calculate the sales share of the four largest food retailers in each of 318 SMSA's (Standard Metropolitan Statistical Areas) (46). The average four-firm sales concentration across all SMSA's was 58.3 percent in 1982, 2 percentage points higher than in 1977 (table 14). For 173 matched cities, concentration increased in a nearly identical pattern. For both groups, concentration increased about 1 percentage point between 1958-63 and 1963-67. The rate of increase accelerated to 4 percentage points between 1972-77 but dropped back to an increase of 2 percentage points between 1977-82.

Such increases in market concentration may be the result of a number of forces including mergers and acquisitions, market exit and entry, market growth, labor cost differentials, and innovation and technological advances.

Mergers and Divestitures

The total number of acquisitions in food retailing dropped to 52 in 1985 from 60 in 1984 (table 15). This count includes all acquisitions made by U.S. food

Table 13--Sales share of leading grocery chains

Item	1958	1963	1967	1972	1977	1982	1985
				Percent			
4 largest chains	21.7	20.0	19.0	17.5	17.4	16.1	19.0
8 largest chains	27.5	26.6	25.7	24.4	24.4	23.6	25.2
20 largest chains	34.1	34.0	34.4	34.8	34.5	34.9	35.5

Sources: (5, 21).

retailing firms regardless of whether the acquired assets were inside or outside the food retailing industry. The count also includes any food retailing assets acquired by nonfood retailing firms. The acquiring firm was a U.S. food retailer in 36 of the 52 acquisitions in 1985, while the acquiring firm was outside U.S. food retailing in the remaining 16 instances. Of the 36 acquisitions made by U.S. food retailing firms, 10 were acquisitions of assets outside food retailing. An example is Kroger's acquisition of Hook Drugs, Inc.

No very large U.S. food retailers merged in 1985 or the first half of 1986 in contrast to 1984, when American Stores (ranked number 4) acquired Jewel Companies (ranked number 9). However, Kohlberg, Kravis, Roberts, and Company, in a leveraged buyout, acquired Safeway, the Nation's second largest food chain. This merger did not increase aggregate concentration in food retailing because the acquiring firm did not have any food retailing operations. If parts of Safeway are subsequently sold to reduce debt, aggregate concentration could decline if any of the buyers are below the current top 20 grocery retailers. The effect of any Safeway spinoffs on local SMSA concentration again would depend on whether the buyer is one of the four largest retailers in that market.

Food chains continue to restructure themselves, making divestitures and acquisitions. Of the 52 mergers last year, 33 were divestitures. Typical divestitures were food retailers or wholesalers buying a group of stores spunoff by a convenience store or supermarket chain. For example, Kroger (ranked number 1) sold its Cleveland area stores and warehouse to Fisher Foods while acquiring Price Savers Wholesaler, Inc., and Hook Drugs, Inc. Kroger is now divesting its drugstore operations. American Stores Company (ranked number 3) spunoff its 310-store White Hen Pantry chain. Lucky Stores, Inc. (ranked number 5) sold its supermarkets in Chicago to Dominicks Finer Foods, Inc., and in Houston to Rice Food Markets, and divested 77 auto part stores to Southland Corporation. Lucky also sold Gemco, its discount department store.

Consolidation continues in the convenience store sector as these firms accounted for 19 acquisitions in 1985. Circle K, one of the fastest growing convenience store firms, acquired two chains in 1985 and another two during the first half of 1986. This firm now owns over 3,400 convenience stores in 25 States, plus a large number of stores in foreign countries. Also in 1986, Dairy Mart, a 900-store chain, agreed to acquire Conna Corporation, operator of 370 convenience stores.

Table 14--Average four-firm concentration, all SMSA's and 173 matched SMSA's

Item	1958	1967	1972	1977	1982
			Percent		
All SMSA's	49.3	50.0	52.4	56.3	58.3
173 SMSA's	48.7	49.4	52.2	56.4	58.7

Sources: (21, 46).

While most mergers in food retailing involve geographic expansion, three horizontal mergers between leading retailers were completed in the first half of 1986. In Norfolk, VA, Farm Fresh (ranked number 1 in the area) acquired Open Air (ranked number 3). In New York City, Red Apple Companies acquired Gristede, making the merged firm the largest food chain in Manhattan. The Great Atlantic and Pacific Tea Company (ranked number 3 in York City) acquired Shopwell, which also operates 53 stores in New York City. And in November 1986, A&P announced the purchase of Waldbaum for $275 million. Waldbaum operates 140 supermarkets in the New York City area, Connecticut, and Massachusetts. The purchase of Shopwell and Waldbaum transforms A&P into the largest food retailer in the New York City SMSA.

The effect of these mergers on market concentration in the two cities will differ. In New York City, which has one of the lowest levels of market concentration of major SMSA's, four-firm concentration will increase significantly, but still remain below 50 percent. In Norfolk, the merged firm will have an estimated 30-percent market share, and four-firm concentration will increase from about 55 percent to about 63 percent based on 1985 data. However, the merger's effect on competition is unclear. Farm Fresh faces four leading competitors with market shares of 8 percent or more. One of these, Food Lion, is the Nation's fastest growing chain and has relatively low labor costs and a reputation for aggressive price competition.

Foreign Developments

Foreign investors have been more attracted to successful midsized regional and local chains in the past. During the late 1970's and early 1980's, common stock priced at or below book value made U.S. retail food firms attractive ventures to foreign investors. Many foreign retailers have had difficulty growing in their home countries due to economic conditions and government restrictions. One such regional chain, Food Lion, owned by Delhaize Freres of France, now ranks 15th among food retailers. A French food retailer has introduced the hypermarket, one of the largest store formats in the United States. The Biggs hypermarket in Cincinnati, one of the first of its kind in the United States, represents a joint venture of foreign investors with a domestic food wholesaler.

Table 15--Mergers and divestitures in food retailing

Year	Acquiring company: Food retailing firm	Acquiring company: Other than food retailing firm	Acquiring company: Total	Divestitures
	Number			
1982	25	13	38	22
1983	35	10	45	33
1984	37	23	60	28
1985	36	16	52	33

Source: (6).

With 1 full year of operation completed, the venture was termed a success. The investors plan to open additional Biggs hypermarkets. Carrefour, another French food retailer, also plans to open two hypermarket stores in the United States in 1987.

Foreign investment in U.S. food retailing has been modest during 1985 and the first half of 1986. LNC Industries of Australia purchased Victory Markets for $74 million. Victory operates 80 supermarkets in New York and is a wholesale supplier to small chains and independents. A West German firm, Asko Deutche Kaufhaus AG, acquired a 27-percent interest in Furr's, Inc., a supermarket chain based in Lubbock, TX. Furr's operated 120 supermarkets with sales of $826 million in 1985. Societe Docks de France acquired Lil' Champ Food stores of Jacksonville, FL, in 1985. Provigo, Canada's second largest food distributor, plans to expand its U.S. subsidiary sales over the next 5 years. Provigo's present U.S. activities include food wholesaling and wholesale club stores. Thus far, the decline in the U.S. dollar relative to many other currencies has not prompted foreign firms to increase food chain acquisitions.

Overseas Activities of U.S. Retailers

Safeway restructured its foreign holdings by selling 22 stores and dairies in Canada while acquiring Woolworth's Ltd., an operator of 850 supermarkets and other retail outlets in Australia. Meanwhile Safeway is continuing to expand its export activities to "Pacific Rim" countries. Circle K Corp., an operator of convenience stores, has pursued joint ventures with Asian firms to build licensed stores in Hong Kong, Malaysia, Brunei, Indonesia, South Korea, Tiawan, Singapore, the Philippines, and China. Circle K already has 175 licensed stores in Japan.

Performance

This section examines perfomance measures of the food retailing industry: employment and wages productivity, profits, and technology.

Employment and Wages

Employment in foodstore retailing exceeded 2.7 million in 1985, an increase of 5.4 percent over 1984 levels (app. table 22). Employment has steadily grown and will continue to grow with the favorable new store formats. For example, food retailers have added or expanded their service departments with delicatessens, bakeries, and fresh seafood, which call for additional service staff. BLS projects food retailing employment to grow 1.8 percent annually to 3.2 million by 1996 (see app. table 22 for employment series). Average hourly earnings for nonsupervisory grocery store employees fell in 1985 for the first time, dropping 4.3 percent to $7.58 (table 16). Although hourly earnings had been rising, year-to-year increases had been declining rapidly from a peak increase of 10.3 percent in 1980 (fig. 8).

By comparison, hourly real earnings remained stable between 1980 and 1984 as declining inflation rates further strengthened smaller annual increases. Real dollar earnings fell 7.4 percent in 1985, despite continued low inflation rates.

Declining average wages of grocery store employees underscore the effects of retailers' efforts to lower labor costs. Changes in work rules affecting pay and multitier wage structures have been initiated in addition to store closings,

Table 16--Grocery store employment: Average hourly earnings

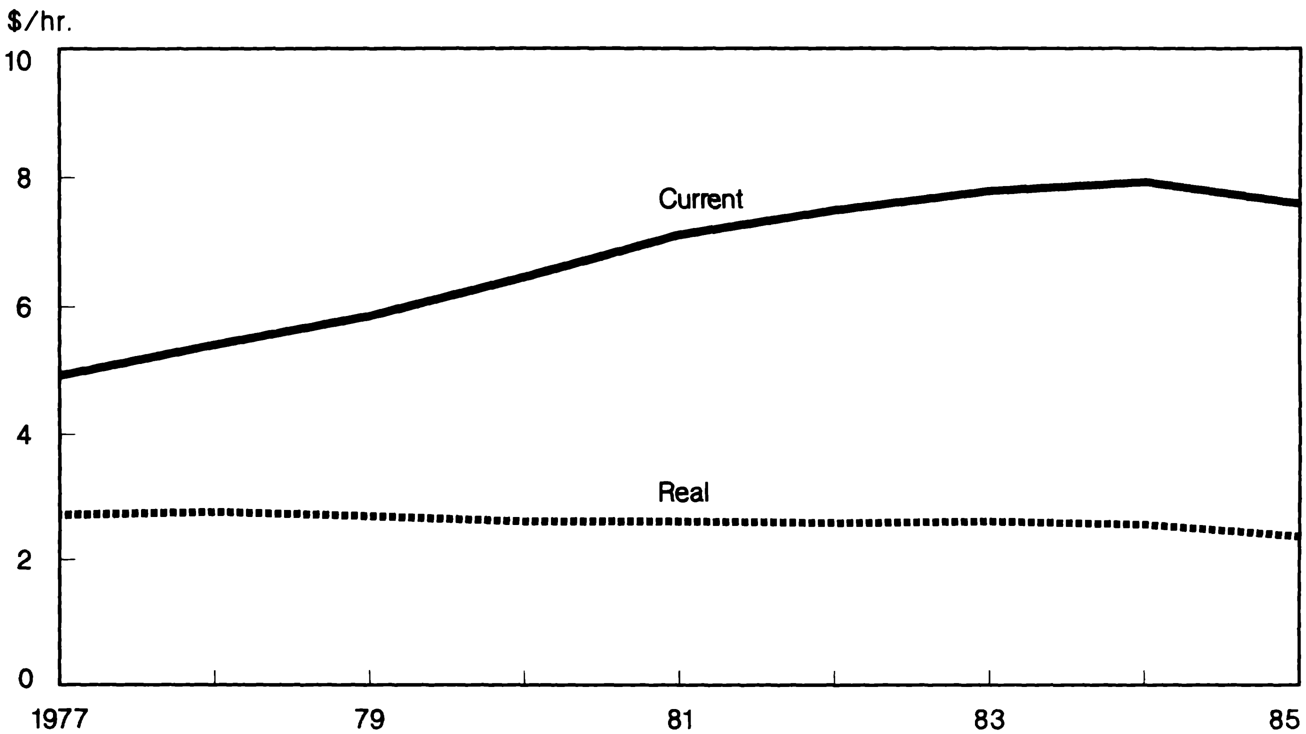
Year	Current	Percentage change from previous year	Real	Percentage change from previous year
	Dollars	Percent	Dollars	Percent
1977	4.92	NA	2.71	NA
1978	5.40	9.76	2.76	1.85
1979	5.85	8.33	2.69	-2.54
1980	6.45	10.26	2.61	-2.97
1981	7.10	10.08	2.61	0
1982	7.48	5.35	2.59	- .77
1983	7.78	4.01	2.62	1.16
1984	7.92	1.80	2.57	-1.91
1985	7.58	-4.29	2.38	-7.39

NA = Not applicable.

Sources: (57, 58).

Figure 8

Average Hourly Earnings, Grocery Store Employees



Source: (57,58).

wage freezes, and concessions. Multitier wage structures establish a lower hourly rate, and often, lower fringe benefits for newly hired employees. In opposition, the United Food and Commercial Workers Union, which with 1.3 million members is the largest labor organization within food retailing, seeks to boost wages in 1987, ending a period of concessions.

While store closings and demands for wage concessions were less frequent in 1986, A&P reported plans to close all its western Virginia stores due to unprofitability and high labor costs. An agreement that called for concessions in fringe benefits and changes in work rules was reached with employees to re-open 60 stores under the Super Fresh banner. A two-tier wage structure would also be set. The Kroger Company, the Nation's largest food retailer, is still seeking concessions in Detroit, Dayton, and Cincinnati. Kroger recently won concessions in Columbus, OH, and Louisville, KY, and is selling off its St. Louis, MO, stores.

Rather than seeking concessions, retailers are more likely to use contract provisions, such as those reached by Kroger in Tennessee, which freeze wages and give bonuses tied to projected profits. An agreement with chain stores that affects 400 workers in western Idaho lowered Sunday wage premiums but upgraded health care and life insurance benefits. A new 3-year contract with P&C Food Markets (New York) provides for lump-sum bonuses twice a year instead of increases in hourly wages (33).

Many recent agreements have either suspended or delayed provisions for Cost of Living Allowances (COLA's). Lower inflation rates have also reduced the effect of COLA's on labor costs.

Productivity

The BLS labor productivity index (1977 = 100) for retail food stores continued its lackluster performance, declining to 92.7 in 1985 from 93.6 in 1984 (app. table 26). Labor productivity peaked in the early 1970's and has remained at a relatively low level during the 1980's.

Such developments as convenience stores with lower sales per worker than supermarkets, and labor-intensive departments (deli, service bakery, floral, and produce) offset such productivity-enhancing developments as bar code scanning (which eliminates item prices on individual packages), improved labor schedules at checkouts, and a wider utilization of boxed beef.

Profits

Net income after taxes for food retailers with assets of $25 million or more averaged 14.2 percent of stockholders' equity in 1985, down from 16.2 percent in 1984 (app. table 28). Profits in the first quarter of 1986 averaged 9.2 percent of stockholders' equity compared with 10.8 percent in 1985. First-quarter profits in food retailing are typically the lowest and fourth-quarter profits the highest because of extra sales during the holiday period. Profits as a percentage of stockholders' equity generally are considered a more appropriate measure than profits as a percentage of sales for comparing profit rates across industries.

The reason average food retailing profits declined in 1985 is not clear. Wholesale food price increases were low as were changes in labor and energy costs.

Increased price competition from superwarehouse stores may be a partial explanation.

Technology

In addition to the use of optical scanning systems, many food retailers are taking the first steps toward computer-based information systems through the use of microcomputers and minicomputers. Retailers have formed committees on computer processing/information systems to plan and implement computer applications. However, food retailers may be reluctant to adopt computer technology without sufficient understanding of the costs and benefits. To address this question, the Food Marketing Institute plans to publish the findings of the taskforce, "Supermarkets in the Information Age," which will include more than 50 computer applications for the supermarket.

One recent application for computer information systems is the Direct Product Profit (DPP) model, which determines the contribution of an individual item to overall store-level profit. The DPP model suggests that allocation of shelf space based upon product movement and margin data can increase rates of return. The DPP evaluation also suggests pricing strategies. The DPP system is criticized for its inability to take into account other factors that may affect overall sales and profits, such as customers' desire for the item or its complementarity with other more profitable products.

New developments in cost-saving technology include automated checkout systems and instore electronic banking systems. "Expressit," an automated checkout technology, is being tested in supermarkets this year. The self-service checkout scans the item's universal product code for product description and price and displays the information on a computer screen (voice presentation in English or a second language is an option). A conveyor belt moves products to a collection and bagging point. Security devices monitor products through the system to ensure that all items have been scanned before bagging. The checkout system is intended to reduce the number of personnel to one clerk per three checkouts. Time required for checkout could potentially be reduced.

Another development contributing to the efficiency of grocery store checkout is the growing use of electronic banking as a means of conducting remote transactions and as a method of payment. Instore automatic teller machines (ATM's) make cash more available for purchases. Bank debit cards for payment also promise cost savings because processing is electronic, avoiding the significant costs of check writing. Customers may favor the convenience of the debit card over the use of cash.

FOOD SERVICE

America's 712,000 foodservice establishments sold $168 billion worth of meals and snacks, excluding alcoholic beverages, in 1985, up 5.9 percent from 1984. Real sales rose 2 percent in 1985 compared with 4.3 percent in 1984 and 5.1 percent in 1983. The growth rate in 1986 likely surpassed that of 1985, based on the performance of separate eating places through the first 9 months of 1986. In 1985, food retailing outperformed food service in a nonrecession year for the first time since the mid-1950's.

The foodservice industry in 1987 is a mature (slower growing) market, fiercely competing with intra-industry establishments and food retailers for a bigger share of the consumer food dollar. Large foodservice firms, particularly fast food chains, are gaining market shares by introducing new products that are heavily advertised and promoted with coupon and meal-pack discounts. Large foodservice firms also are rapidly building new units and buying existing restaurants in prime locations and converting them to their own concepts. Many are expanding overseas and into such nontraditional markets as shopping malls, hospitals, hotels, and military bases; increasing takeout, drive-through window, and home delivery operations; and jointly marketing foodservice products with food retailers and manufacturers in food retailing outlets.

In addition to industry maturation and increased competition, critical industry issues in the late 1980's include potentially severe labor shortages in certain markets and high labor turnover rates, both hampering productivity and growth. Public concern over alcohol abuse means a smaller percentage of profits may come from beverage alcohol and more from food.

Composition

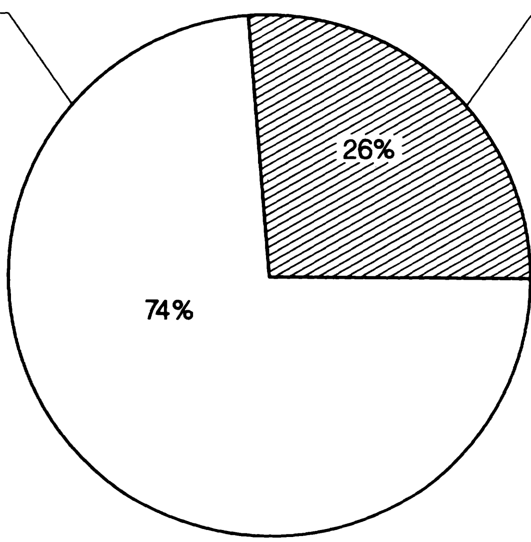
This country has more than 700,000 places to eat out, ranging from hot dog counters at ball parks to school cafeterias. The foodservice industry consists of many market segments commonly divided into commercial and noncommercial sectors (fig. 9). Commercial foodservice estabishments exist for profit, while noncommercial foodservice operations in such establishments as nursing homes, child daycare centers, factories, and the military provide a feeding service and are generally nonprofitable.

Figure 9

Foodservice Sales by Sector, 1985

Commercial

• Restaurants	$52 billion
• Fast Foods	51
• Cafeterias	3
• Lodging Places	7
• Retail Hosts	5
• Recreation	4
• Drinking Places	1
Total	124



Noncommercial

• Education	$13 billion
• Hospitals & Care Facilities	11
• Plants & Office Bldgs.	7
• Military	3
• Vending	4
• Transportation	2
• Associations	1
• Correctional Facilities	1
• Day Care Centers	1
• Other	1
Total	44

Separate eating places (often abbreviated to eating places) derive revenue mainly from sales of meals and snacks. They include full-service restaurants, fast food outlets, and commercial cafeterias. Such places accounted for 64 percent of the retail value of all food consumed away from home in 1985 (table 17). They accounted for 62 percent of commercial foodservice establishments in 1985 and 86 percent of commercial sector sales. The remaining sales in this sector are from outlets that are part of a larger facility of which foodservice sales are less than other revenue. These outlets may include department store coffee shops, snack bars and restaurants at Disney World, or neighborhood pubs.

Although many noncommercial outlets serve food to more people than commercial eating places do, they account for only 26 percent of the total retail value of food away from home. Schools and child care centers account for about 31 percent of that share; hospitals and care facilities, 26 percent; plants and office buildings, 15 percent; vending, 8 percent; military services, 6 percent; transportation, 4 percent; associations, 4 percent; correctional facilities, 3 percent; and other institutions, 3 percent.

Sales

Total sales of meals and snacks, excluding alcoholic beverages, at foodservice establishments rose almost 6 percent from those of 1984 to $167.8 billion in

Table 17--Foodservice sales and establishments by industry sector, 1985

Foodservice industry sector	Sales: Share of industry	Sales: Share of sector	Establishments: Share of industry 1/	Establishments: Share of sector 1/
	Percent			
Total	100	NA	100	NA
Commercial sector	74	100	58	100
Eating places 2/	64	86	36	62
Restaurants	31	49	18	49
Fast food outlets	31	48	18	49
Cafeterias	2	3	1	2
Other	10	14	22	38
Noncommercial sector	26	100	42	100

NA = Not applicable.

1/ Subtotals for eating places do not add to 100 because of rounding.
2/ Eating places (SIC 5812 with payroll) are retail establishments that derive most of their revenue from sales of prepared meals and snacks for on-premise or immediate consumption. Eating facilities that are subordinate parts of other kinds of businesses (for example, a hotel restaurant or bowling alley snack bar) are excluded from eating places unless they are leased to or run by outside operators; otherwise, they are included under "Other."

1985 (table 18). Real sales increased 19 percent during 1977-85, with a 2-percent gain in 1985. In 1986, real sales may have increased 2.5 percent. Real growth rates in 1985 and 1986 were below the high growth rates of 1983 and 1984, 5.1 percent and 4.3 percent, respectively, and the 3-percent annual average growth rate during 1960-80.

The commercial foodservice sector captured $123.5 billion, or 74 percent, of total foodservice sales in 1985 compared with $116.1 billion in 1984, an increase in sales of 6.4 percent. Real sales increased 26 percent during 1977-85, with a 2.3-percent gain in 1985.

In comparison, 1985 sales in the noncommercial sector amounted to $44.3 billion, up from $42.4 billion in 1984, an increase in sales of 4.5 percent. Real sales increased 2 percent during 1977-85, with a 0.6-percent gain in 1985.

Structure and Organization

U.S. away-from-home eating establishments rose 14 percent from those in 1977 to 711,831 in 1985 (table 19). The number of eating facilities in the noncommercial sector rose 35 percent between 1977 and 1985, with big increases in child daycare centers, nursing homes, and elderly feeding programs. However, real noncommercial sector sales increased less than 2 percent during the same period. Nearly 70,000 new child daycare eating facilities greatly boosted overall unit growth but had little effect on sector sales. Children under 6 years old do not eat much. Unit count declines in the education, hospital, and military segments hampered sector sales growth.

The number of commercial sector outlets rose 2 percent between 1977 and 1985, although the number of fast food outlets increased 24 percent. The number of cafeterias and the number of separate drinking places declined 23 percent and 21 percent, respectively. The number of eating facilities in lodging places and such retail hosts as department stores also declined. Real commercial sector sales and real fast food sales increased 26 percent and 46 percent, respectively, during 1977-85.

Market Concentration

The Nation's 4, 8, 20, or 50 largest eating place firms have increased their shares of eating place sales gradually. However, the 4 and 50 biggest eating place firms accounted for 5 and 20 percent, respectively, of eating place sales in 1982. Among limited-menu restaurants, the 4 and 50 largest firms accounted for 9 and 26 percent, respectively, of 1982 sales. In food service, as in food retailing, the relevant market focus for most firms is local or regional. National market concentration data, though useful in aggregate analyses, do not provide information on market power in geographic subsectors.

Market shares would have been higher if the sales of firms operating under franchises had been grouped with sales of parent franchise firms. The following analysis of 1985 sales concentration includes systemwide sales for franchise companies (that is, sales from both parent company-owned and franchisee-owned outlets).

Table 18--Sales of meals and snacks and percentage change in real sales

Industry segment	Sales of meals and snacks 1/ 1977	1983	1984	1985 2/	Percentage change (1977-85)	Percentage change in real sales (1977-85) 3/
	Million dollars				Percent	
Commercial feeding	56,624	105,634	116,095	123,500	118.1	26.0
Separate eating places	47,426	90,356	99,582	106,743	125.0	30.1
Restaurants, lunchrooms	24,720	44,731	48,419	52,296	111.5	22.3
Fast food outlets	20,334	41,898	47,319	51,455	153.0	46.2
Cafeterias	1,813	2,871	3,022	2,992	65.0	-4.6
Lodging places	3,613	6,756	7,264	7,355	103.0	17.6
Retail hosts	2,691	4,319	4,779	4,910	82.5	5.4
Recreation, entertainment	1,915	3,093	3,394	3,510	83.3	5.9
Separate drinking places	979	1,111	1,076	982	.3	-42.0
Noncommercial feeding	25,152	40,098	42,390	44,343	76.3	1.9
Education	8,242	11,624	12,239	12,942	57.0	-9.3
Elementary, secondary	5,886	7,537	7,930	8,472	43.9	-16.8
Colleges, universities	2,256	3,886	4,092	4,230	87.5	8.3
Other education	100	201	217	240	140.0	38.7
Plants, office buildings	3,576	6,258	6,793	7,186	100.9	16.1
Hospitals	3,711	5,715	5,817	5,905	59.1	-8.0
Care facilities	2,388	4,983	5,281	5,452	128.3	32.0
Vending	2,508	3,348	3,583	3,730	48.7	-14.1
Military services	1,595	2,255	2,366	2,470	54.9	-10.4
Troop feeding	1,245	1,709	1,765	1,853	48.8	-14.0
Clubs, exchanges	350	546	601	617	76.3	1.7
Transportation	1,079	1,793	1,922	1,996	84.9	6.9
Associations	958	1,501	1,562	1,610	68.1	-2.7
Correctional facilities	492	1,092	1,155	1,205	144.9	41.5
Child daycare	249	663	760	835	235.3	94.4
Elderly feeding programs	202	629	689	744	268.3	112.9
Other	151	238	252	268	77.5	2.7
Total	81,776	145,733	158,485	167,843	105.2	18.6

1/ Excludes alcoholic beverages.
2/ Preliminary figures.
3/ Consumer Price Index 1967 = 100.

Table 19--Number of foodservice establishments

Industry segment	1977	1985 1/	Percentage change
	Number	Number	Percent
Commercial feeding	401,502	409,869	2.1
Separate eating places	229,892	255,699	11.2
Restaurants, lunchrooms	118,896	125,502	5.6
Fast food outlets	100,493	124,809	24.2
Cafeterias	7,001	5,388	-23.0
Lodging places	25,931	22,613	-12.8
Retail hosts	60,652	56,005	-7.7
Recreation, entertainment	33,619	34,910	3.8
Separate drinking places	51,408	40,642	-20.9
Noncommercial feeding	223,005	301,962	35.4
Education	97,325	95,775	-1.6
Elementary, secondary	91,300	89,400	-2.1
Colleges, universities	3,095	3,299	6.6
Other education	2,930	3,076	4.9
Plants, office buildings	15,187	15,963	5.1
Hospitals	7,099	6,835	-3.7
Care facilities	21,117	29,711	40.1
Vending	3,737	3,535	-5.4
Military services	3,971	3,270	-17.6
Troop feeding	1,435	1,290	-10.1
Clubs, exchanges	2,536	1,980	-21.9
Transportation	799	640	-19.9
Associations	18,966	19,450	2.5
Correctional facilities	6,907	7,204	4.3
Child daycare	18,967	88,410	366.1
Elderly feeding programs	11,173	14,068	25.9
Other	17,757	17,101	-3.7
Total	624,507	711,831	13.9

1/ Preliminary figures.

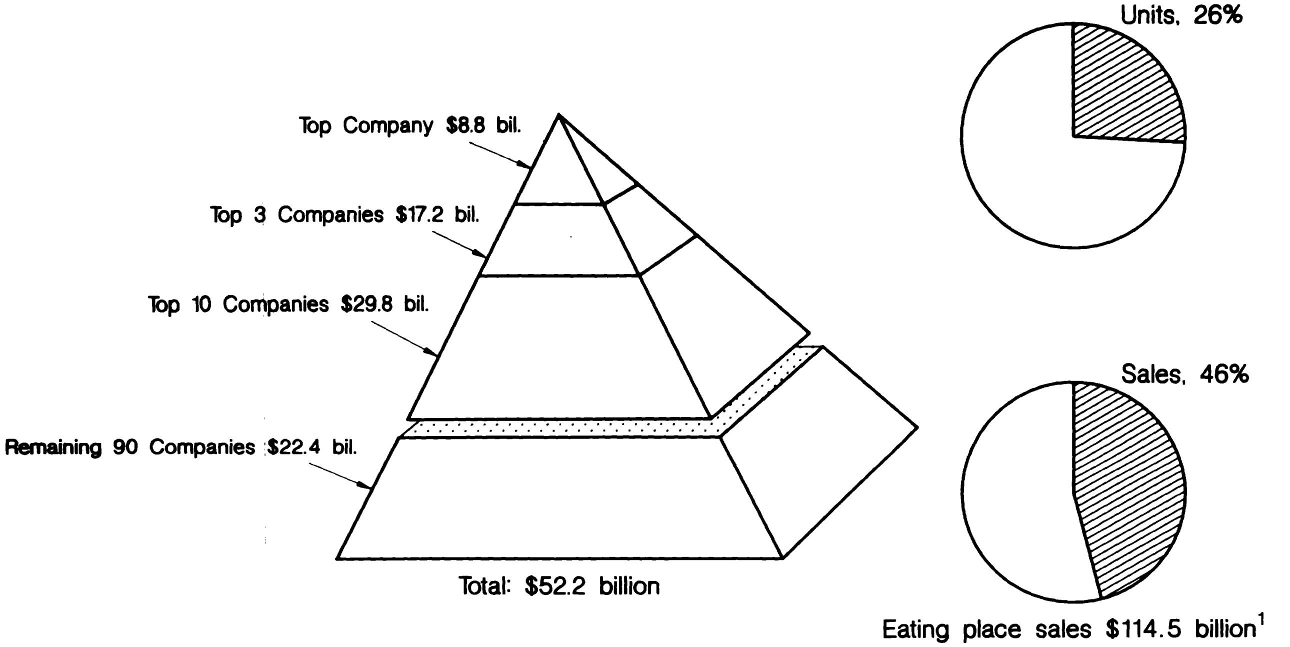
Technomic Consultants estimated that, among separate eating places in 1985, the top 100 restaurant companies accounted for 46 percent of sales, up from 44 percent in 1984 and 26 percent of units (fig. 10). In 1975, the top 100 accounted for 38 percent of sales and 18 percent of units. Concentration is even more apparent if one considers only the top 3 and top 10 companies. The top three alone--McDonald's, Pillsbury Company (Burger King, Bennigan's, Steak and Ale, Godfather's, Quik Wok, J. J. Muggs, Bay Street, Hoffman House, and Luthers Bar-B-Q restaurants), and PepsiCo (Pizza Hut, Boulangerie, Taco Bell)--accounted for one-third of sales of the top 100 companies. The top 10 accounted for nearly 60 percent. In 1985, the 100 largest restaurant companies increased domestic sales by $4.7 billion. But the top three companies accounted for $2.2 billion, or nearly half, of that growth.

The top 100 restaurant companies accounted for 80 percent of sales in fast food places in 1985, up from 67 percent in 1975, and 45 percent of units, up from 38 percent in 1975. They accounted for 23 percent of sales in the restaurant segment in 1985, up from 18 percent in 1975, and 9 percent of units, up from 6 percent in 1975. Big chains are responsible for much of the growth, but there is still a large small chain and independent midscale-upscale market that has not consolidated to the same degree as the quick service category has.

McDonald's Corporation, Oak Brook, IL, is by far the leading foodservice chain, with 1986 domestic and international sales projected to hit $12.5 billion, according to Nation's Restaurant News. The rapidly expanding fast food chain has approximately 9,460 units; one new McDonald's opens somewhere in the world about every 15 hours. Burger King, Miami-based subsidiary of the Pillsbury

Figure 10

Concentration in Separate Eating Place Market, Top 100 Firms, 1985



1/ Includes alcoholic beverages.
Source: (34).

Company, is McDonald's closest competitor with systemwide sales of $5 billion. Wendy's International, Inc., Dublin, OH, with sales of $3.2 billion, places third among burger chains and fourth among all restaurant chains behind Kentucky Fried Chicken, Louisville-based subsidiary of PepsiCo, Inc., with projected sales of $3.3 billion in 1986. PepsiCo, Inc. acquired Kentucky Fried Chicken from RJR Nabisco, Inc. in late 1986.

Franchising

Franchised restaurants, both company-owned and franchisee-owned, represent a key segment of the commercial restaurant industry. They commanded a 42-percent share of total eating-place sales in 1984 compared with 21 percent in 1970.

Franchised restaurant sales rose from $4.6 billion in 1970 to $43.4 billion in 1984 (fig. 11). Real sales increased 3-1/2 times during 1970-84. The number of franchise outlets more than doubled between 1970 and 1984, from 32,584 units to 70,495 units (fig. 12).

Franchised restaurant sales rose 11 percent over those of 1984 to almost $48 billion in 1985. They are expected to jump about 12 percent to $54 billion in 1986. Franchised restaurants numbered 75,824 in 1985 and are expected to rise to nearly 83,000 in 1986.

In 1984, 13 big franchisors operated over 1,000 units each. Combined, they represented 53 percent of all restaurants in the franchise system, or 37,467 restaurants and accounted for $26 billion, or 60 percent, of franchised restaurant sales.

Hamburger, roast beef, and frankfurter restaurants numbered 31,016 units and accounted for 41 percent of franchised restaurants and 50 percent of franchised restaurant sales in 1985 (table 20).

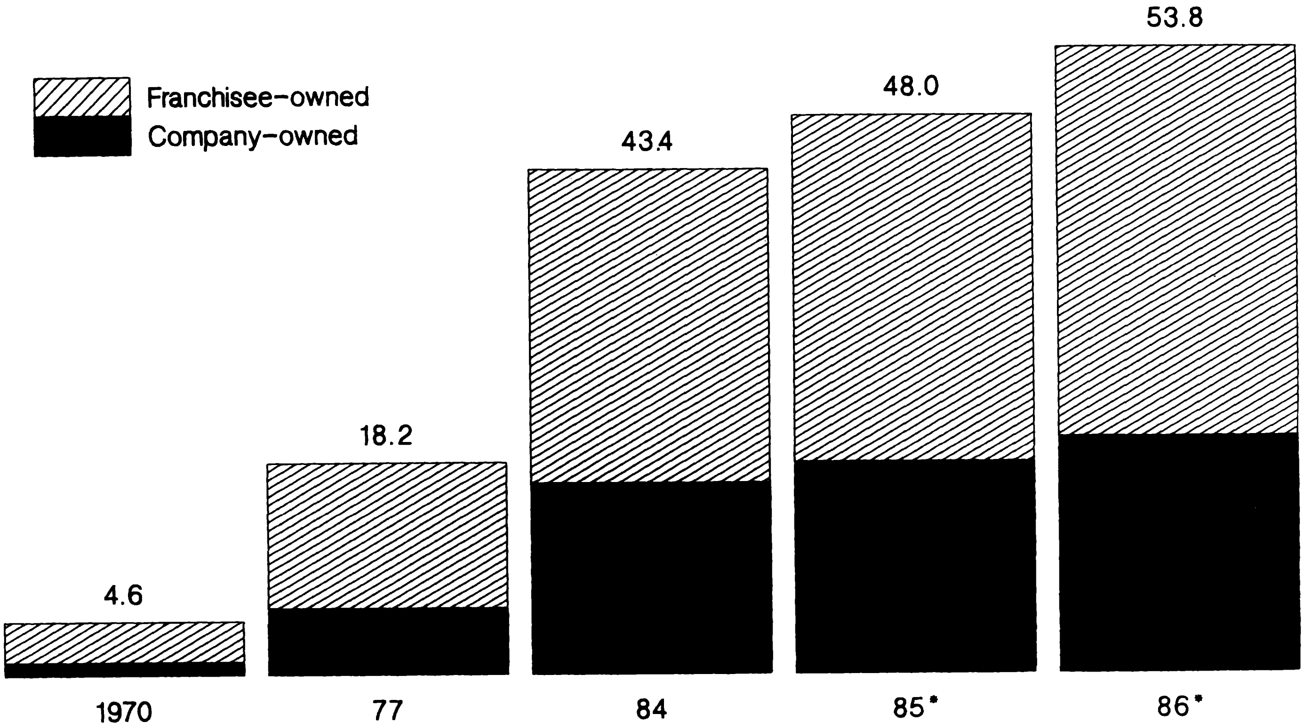
International operations of franchised restaurants continue to expand. In 1984, the most recent year for which data are available, 67 restaurant franchisors operated 5,990 units in foreign countries compared with 64 restaurant franchisors and 5,516 units in 1983. In 1971, restaurant franchisors operated 930 units in foreign countries.

Canada accounted for the largest number of restaurants in 1984, followed closely by Japan (table 21). South Korea has been a popular expansion candidate in recent years. Kentucky Fried Chicken stated in its 1985 annual report that it plans to have 25 units operating in South Korea by the time of the 1988 Summer Olympic Games. PepsiCo is negotiating to open Pizza Hut units in the Soviet Union in 1987. Other chains, including McDonald's, are said to be negotiating with the Soviets.

McDonald's is pacing the industry, with 2,037 restaurants in 43 foreign countries by the end of 1986 when foreign units accounted for 22 percent of McDonald's systemwide units. Contenders are Kentucky Fried Chicken, with 1,773 total units abroad, and Pizza Hut, with 576. Store volumes and real growth in key international markets continue to outpace the U.S. averages. The highest volume Pizza Hut in the world is in Hong Kong. Its volume is nearly four times that of the average U.S. Pizza Hut.

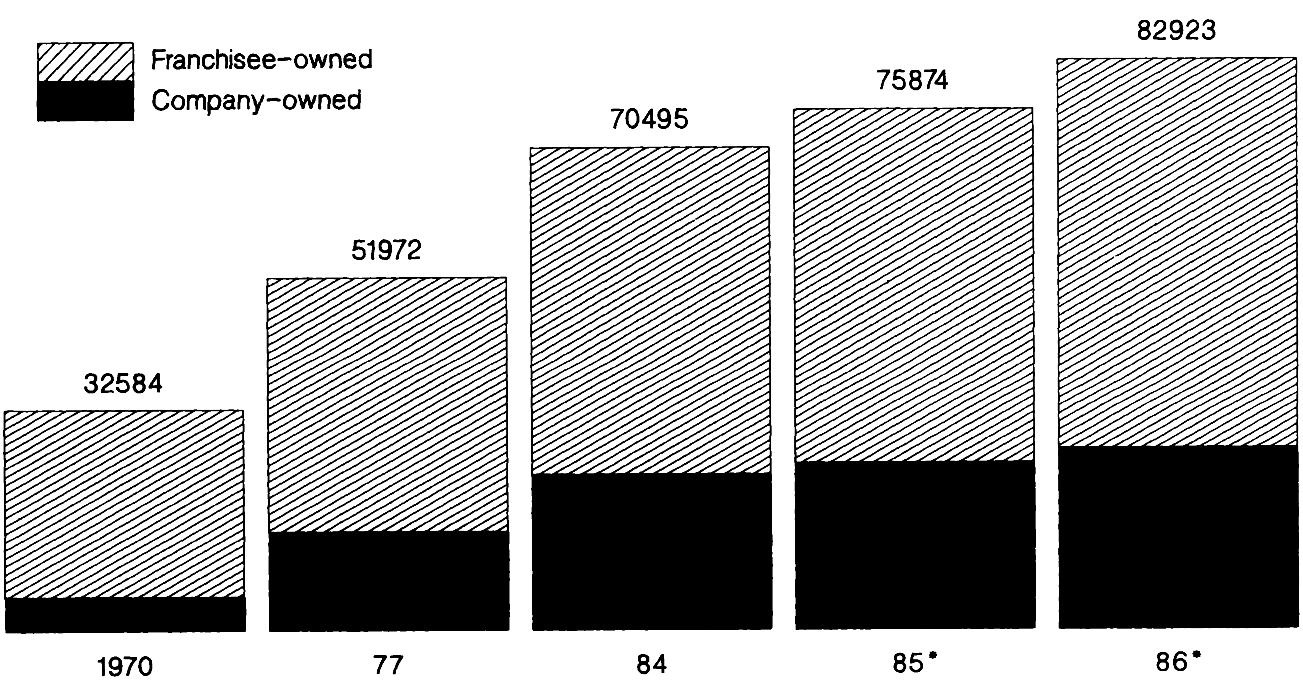
Another 20 restaurant franchisors plan to extend their operations to foreign countries by the end of 1987, according to the U.S. Department of Commerce's

Figure 11
Franchise Restaurant Sales (billion dollars)



* Estimated by respondents.
Source: (18).

Figure 12
Number of Franchise Restaurant Units



* Estimated by respondents.
Source: (18).

15th annual survey of franchisors. As many foreign countries improve their standard of living and evolve into more service-oriented economies, receptiveness to American-style franchising will continue to create export opportunities for U.S. franchisors despite increased competition from local firms and other international firms.

Mergers

In keeping with the overall high level of mergers and acquisitions during 1985, foodservice firms were involved in 73 such transactions during the year (table 22). Driven by the lure of instant market penetration and the waning availability of high-traffic primary site locations, foodservice chains are turning increasingly to acquisitions. Although new store construction continues at a quick pace, a number of chains are significantly extending their geographic reach by acquiring struggling competitors and converting acquired units to their own concept. Others have embraced the acquisition/conversion route strictly to secure prime sites within established markets.

The cost of acquiring and converting existing sites is usually equal to or more expensive than building freestanding units. The motivations for such acquisitions clearly are to rapidly expand and to acquire prime locations.

PepsiCo began its restaurant operations in 1977, when it acquired Pizza Hut. Taco Bell was added in 1978. PepsiCo has added hundreds of restaurants to these chains in the last few years by buying existing restaurant chains and converting them to Pizza Hut and Taco Bell outlets. Acquisition of the 200-unit Straw Hat Pizza from Marriott at yearend 1986 affords PepsiCo the opportunity to penetrate exclusive California markets in which it does not have a large presence. In late 1986, PepsiCo acquired the 6,500-unit Kentucky Fried Chicken

Table 20--Distribution of franchise restaurants by major activity, 1985

Major activity	Establishments		Sales	
	Total	Share of total	Total	Share of total
	Number	Percent	Billion dollars	Percent
Chicken	9,256	12	4.4	9
Hamburgers, roast beef, frankfurters	31,016	41	24.1	50
Pizza	14,417	19	5.7	12
Mexican	4,200	6	2.4	5
Seafood	2,463	3	1.2	3
Pancakes, waffles	1,773	2	1.1	2
Steak, full menu	9,877	13	8.4	18
Sandwich and other	2,872	4	.7	1
Total	75,874	100	48.0	100

Source: (58).

chain from RJR Nabisco for $840 million. This brings the number of PepsiCo restaurants to over 14,000 worldwide, making it the Nation's largest restaurant owner.

General Mills, Inc., apparently disillusioned with subpar returns in three of its six restaurant concepts, restructured its operations in 1985, concentrating on expansion of three concepts while divesting the mediocre performers. The company is redeploying assets into the 400-unit Red Lobster chain and its worldwide seafood supply network; the 130-unit York Steak House chain and its shopping mall locations; foreign markets, where there are 10 Red Lobsters; and the 14-unit Olive Garden Italian dinnerhouse chain. The move to sell three lackluster chains followed a decision to abandon an internal building and design operation as the company shifted its development tactics from constructing new units to acquiring existing, strategically located restaurants for conversion.

W. R. Grace and Company, acquired several chains, including two from General Mills, for $250 million in 1985. It also planned to sell 125 unprofitable restaurants, or 15 percent of its foodservice division, to streamline its

Table 21--International restaurant franchising: Location and number of establishments

Location	Establishments						
	1971	1974	1976	1978	1981	1982	1984
	Number						
Canada	519	860	1,047	1,196	1,220	1,172	1,591
Mexico	44	71	87	84	99	100	119
Caribbean	40	70	96	150	198	234	290
United Kingdom	63	429	433	454	442	481	576
Continental Europe	40	101	103	164	316	360	514
Australia	163	223	224	384	468	522	581
Asia	37	306	468	710	1,336	1,535	1,921
Japan	NA	265	415	590	1,106	1,259	1,490
Other	NA	41	53	120	230	276	431
Other	24	109	162	198	246	271	335
Africa	NA	NA	NA	NA	NA	124	172
New Zealand	NA	NA	NA	NA	NA	71	88
Central America	NA	NA	NA	NA	NA	45	75
South America	NA	NA	NA	NA	NA	31	63
Total	980	2,169	2,620	3,340	4,325	4,675	5,990

NA = No estimate available.
1/ Includes company-owned, franchisee-owned, and joint ventures.

Source: (58).

845-unit foodservice group. Many of the units were located in underpenetrated markets outside the company's east coast and California stronghold.

Other recent examples of expansion through acquisition follow. Vicorp Restaurants, Inc., acquired 224 of the now defunct Sambo's coffee shop chain in 1984, converting the stores to its own Village Inn and Bakers Square concepts. Denny's absorbed 78 Colony Kitchen restaurants in 1984 and acquired several Sambo's sites and 75 VIP's and Alphy's restaurants, greatly enhancing its market penetration. Hardee's swept into the Midwest from its primarily southern base of operations and increased its presence to nearly national proportions by acquiring the 700-unit Burger Chef chain from General Foods. It converted the bulk of those units to Hardee's. Marriott's Roy Rogers filled in markets along the eastern seaboard and nearly doubled in size by acquiring the struggling Gino's fast food chain and converting some 175 of the units to its own concept.

Performance

Important areas of industry performance include measures of labor productivity and profit, new product introductions, advertising and promotional efforts, cost control and pricing strategies, and the rate of adoption of existing technologies.

Productivity

Productivity in eating and drinking places, as measured by sales per employee hour, dropped 2.3 percent in 1984 and 2.7 percent in 1985. The BLS productivity index for eating and drinking places (SIC 58) declined from 100.0 in 1977 to 95.5 in 1984 and 92.9 in 1985, a 20-year low. Despite sales gains in 1984 and 1985, hours increased even more, resulting in the productivity falloffs. This drop in productivity is perplexing in view of the proportionate increase in chain outlets and franchise establishments, which presumably benefit from economies of scale in advertising and promotion, centralized purchasing, inventory, accounting, technological innovations, and training programs.

Table 22--Mergers and divestitures in food service

Year	Acquiring company			Divestitures
	U.S. foodservice firm	Other than U.S. foodservice firm	Total	
	Number			
1982	33	18	51	33
1983	43	21	64	35
1984	39	39	78	30
1985	49	24	73	39

Source: (6).

Some potential reasons for the productivity downturn in eating and drinking places after 1977 include a 42-percent decline in real sales for drinking places, expanded menus in fast food places, longer business hours in many eating places to accommodate breakfast additions to menus, and additional labor to service drive-through window and home delivery operations.

Profits

Net margin equals net income, or aftertax profit, as a percentage of total revenue. Also called return on sales, it is a shorthand for how well companies control costs. Among 90 publicly held restaurant companies surveyed by Nation's Restaurant News, net margins for the 12 months ending in June 1986 averaged 5.4 percent (36). This is a mean average that weights the result by the dollar-for-dollar clout that larger restaurants enjoy. The median return on sales, or net margin, among those 90 companies was 3.1 percent. The difference between mean and median suggests that the largest of the public foodservice companies are outperforming their smaller competitors. McDonald's 1985 return on sales was 11.5 percent.

Return on equity (ROE) equals net income as a percentage of stockholder equity. It measures how well executives are using the money entrusted to them by investors, who are the ultimate owners and managers of any corporation. The median ROE among the surveyed companies for the 12 months ending in June 1986 was 9.4 percent. But the mean weighted average, which skews the result according to economic power, came in at 15.7 percent, which is generally the return stockholders expect from restaurant stocks. Many of the largest foodservice corporations continued to produce returns on equity of 20 percent or more during 1985. Marriott's ROE was 22.1 percent in 1985, the sixth straight year it exceeded 20 percent. McDonald's ROE for 1985 was 19.3 percent.

Advertising and Promotion

Restaurants and fast food chains topped the $1-billion mark in television advertising expenditures in 1985 and joined an elite group of big spenders that included automakers, food companies, and toiletries manufacturers.

Restaurants, which boosted spending 17 percent to $1.09 billion in 1985, became the fourth such group to hit the 10-digit mark, according to the Television Bureau of Advertising. The 17-percent rise in television spending came in a year when customer counts were flat and competition stiff in all segments of the industry.

McDonald's led the field once again and increased spending 19 percent to $303 million, including $185 million for network buys and $118 million for local spots (table 23). McDonald's led all U.S. television advertisers in local spot expenditures. Network buys placed McDonald's fifth, behind Proctor and Gamble ($494 million), Philip Morris (subsidiaries of which include General Foods, Miller Brewing Company, and Seven-Up) ($348 million), General Motors ($209 million), and Ford ($191 million). McDonald's nearly outspent its three nearest rivals, Burger King, Kentucky Fried Chicken, and Wendy's, which together spent $314 million on television advertising in 1985.

Restaurants and fast food chains spent $93 million on radio advertising in 1985, with PepsiCo's Taco Bell, Saga Corporation, and Pillsbury's Bennigan's leading the field, according to the Radio Advertising Bureau. Taco Bell spent $11.3

million on radio commercials in 1985, up 29 percent over its 1984 expenditures (table 24).

Table 23--Leading foodservice television advertisers, 1985

Chain	Network	Spot	Total	Percentage change from 1984
	--- Million dollars ---			Percent
McDonald´s	184.9	117.9	302.8	19
Burger King	71.1	83.9	155.0	20
Wendy´s	44.3	39.4	83.7	14
Kentucky Fried Chicken	45.0	31.0	75.3	20
Pizza Hut	18.4	44.9	63.3	9
Taco Bell	0	38.7	38.7	36
Hardee´s	8.9	23.3	32.2	26
Red Lobster	12.9	14.8	27.7	-7
Long John Silver	0	26.3	26.3	34
Denny´s	10.5	12.5	23.0	22
Domino´s Pizza	9.3	8.1	17.4	202
Arby´s	5.8	10.1	15.9	26

Source: (35).

Table 24--Leading foodservice radio advertisers, 1985

Chain	Spending	Percentage change from 1984
	Million dollars	Percent
Taco Bell	11.3	29.0
Saga Corporation 1/	9.0	180.0
Bennigan´s	8.4	5.6
McDonald´s	5.4	41.4
Church´s Fried Chicken	3.8	64.0
Rax	3.0	1,092.0
Kentucky Fried Chicken	2.2	37.6
Roy Rogers	1.7	91.0
White Castle	1.5	9.3
Shoney´s	1.3	69.1
Red Lobster	1.0	26.7
Del Taco	1.0	80.0
Pizza Hut	.7	12.1

1/ Saga Corporation is a diversified company that operates Black Angus, Straw Hat Pizza, Velvet Turtle, and Grandy´s.

Source: (28).

Although most marketing dollars are spent on television, radio remains an effective competitive weapon for generating impulse buying, product testing, and repeat sales. Market leaders use radio to maintain market shares, introduce new products, and open up new dayparts such as breakfast. Challengers also use radio to zero in on likely customers, establish niches for new products, or improve awareness and sales against geographic or demographic targets.

McDonald's spent $550 million, or 4.9 percent of sales, on advertising and promotion in 1985. Of that amount, 56 percent, or $308 million, bought television and radio advertisements. The remaining $242 million was spent in such media as magazines, newspapers, coupons, promotions, and billboards.

Many restaurant executives consider couponing a necessary evil, a matter of survival in an increasingly competitive marketplace (32). To others, it is an effective vehicle for introducing a new product or daypart, such as breakfast. In spring 1986, 5.4 percent of restaurant meals were purchased and discounted by coupon compared with 4.6 percent in spring 1985, according to the CREST Report. The percentage was higher for fast food outlets.

The percentage of restaurant meals purchased on deal, including coupons, meal-pack discounts, and 2-for-1 specials, has been rising (table 25). In winter 1986, 14 percent of all restaurant meals were purchased on deal compared with 17 percent of fast food meals. In 1985, promotions were used at dinner on 15.3 percent of all occasions versus 10.2 percent and 9.5 percent at lunch and breakfast, respectively. Use of promotions at dinner increased 19 percent between 1982 and 1985.

A Slowdown in Foodservice Employment Growth

The BLS estimates that employment in separate eating and drinking places in 1985 totaled 5.7 million workers, or 5.2 percent of all employed Americans, including many part-time workers. The National Restaurant Association puts total foodservice employment in 1985 at about 8 million.

Table 25--Percentage of meals purchased on deal

Quarter	1982	1983	1984	1985	1986
			Percent		
Winter	12.5	12.9	11.6	11.7	14.3
Spring	11.6	11.0	10.1	11.1	12.2
Summer	10.0	9.9	9.8	10.4	11.1
Fall	10.9	11.5	10.8	12.2	NA

NA = No estimate available.

Source: (23).

The American penchant for eating outside the home should result in a continuing increase in employment in the foodservice industry, but the rate of increase is expected to slow (24). The real output of eating and drinking places rose rapidly over the past decade as more women entered the labor force and as the large population of young people boosted the popularity of fast food establishments. Employment increases in eating and drinking places represented more than 10 percent of all jobs created in the economy between 1969 and 1979 and more than 16 percent of new jobs between 1979 and 1984. Demand for meals away from home is expected to taper off in the next decade as the growth rate of total disposable income slows, although employment still could gain as an older population shifts its demand toward more labor-intensive "sit-down" restaurants. Employment in eating and drinking places is projected to rise 1.2 million to 6.9 million by 1995, accounting for about 8 percent of all new jobs.

Labor Shortages and High Turnover Rates

The BLS projects that the number of workers between the ages of 16-24, the traditional source of entry-level employees, will shrink 11 percent by 1990 to 21.3 million from 1984's 24 million. That trend will continue through the mid-1990's. Jobs, however, are expected to continue increasing. The BLS estimates that, assuming moderate growth, the number of jobs created between 1984 and 1990 will be 1 million higher than the number of people added to the work force.

The BLS estimates that workforce growth is averaging about 1.3 percent a year, about half the annual growth rate in the 1970's, when the economy absorbed the postwar "baby boom" and an increase in female workers. The rate is expected to drop even further before picking up in the mid-1990's.

High turnover rates in the foodservice industry exacerbate labor shortages, which are cropping up in high employment areas of the Nation. The National Restaurant Association said the industry lost 32 percent of its workers in 1984 (the most recent data available), twice the turnover rate for American business and industry. Food counter and fountain workers and waiter/waitress assistants all demonstrated a 43-percent turnover rate. Kitchen workers, waiters, and waitresses had a 32-percent rate. Supervisors had a 24-percent turnover rate.

Menu Prices

Food prices in 1986 rose slower at supermarkets and other grocery stores than at eating places, continuing a trend of recent years. Prices at grocery stores went up 1.4 percent and 2.7 percent, respectively, in 1985 and 1986 while restaurant meals climbed about 4 percent each year. Over three-fourths of a typical supermarket's cost components are for food; in effect, supermarket prices closely reflect the overall wholesale food price index, but restaurant prices do not. Less than half of a typical restaurant's costs are for food. The remainder are for labor (a significant cost in this labor-intensive business), utilities, rental, and other costs.

Though the CPI for food away from home climbed 4 percent in 1986, many restaurateurs, especially in the country's depressed oil producing, farming, mining, and manufacturing areas, actually reduced prices outright without the smokescreen of coupons or discounts. Steak and Ale, for example, added new low-priced entrees to its 59 stores in the oil belt. Rax reduced prices at drive-through windows in parts of Ohio and West Virginia. And Wendy's did the same in parts of Texas and Wisconsin.

Customer check averages fell in 1986 for the first time in the 10 years CREST has been tracking them. The fall is likely the result of menu price cuts, the use of coupons and other meal discounts, and such trading down on the part of the consumer as the substitution of small sodas for larger ones. NPD Crest data also reveal that consumers traded down in their choice of restaurants. The quickservice segment experienced strong traffic gains in 1986, but midscale and upscale restaurants posted traffic declines.

Some foodservice operators may be able to afford some minor price cuts or to hold prices in check because commodity costs and wage rates have been restrained. Tax reform, which will reduce the levies at many companies, might also relieve some cost pressures. But the main reason for price cutting and trading down may follow patterns in the consumer economy. Slow growing wages, high unemployment by historical standards, and heavy consumer debt likely will put continued pressure on menu prices in 1987.

Costs

Restaurants' biggest nonfood cost is labor. Many firms are developing new job training and incentives programs to improve productivity, reduce costly labor turnover, and gain a competitive edge in attracting employees in areas affected by labor shortages (8). Many are looking to new forms of automation to reduce labor costs. In a move to catch up with supermarkets, some restaurants are introducing computers to increase their efficiency in sales and inventory control (17). Some suppliers are moving to assist restaurateurs by offering leased computers and tailored management software programs.

Restaurateurs with liquor liability insurance in 1986 paid a premium increase averaging 110 percent, according to a Gallup survey conducted for the National Restaurant Association (14). Respondents reported an average premium of $39,555 for fiscal year 1986. In 1986, 18 States had dramshop laws that held the server of alcoholic beverages accountable for actions of the consumer. Seventeen States established the same liability through common law precedent. And five States had both dramshop and common law liability.

Some chains are trying to cut costs by increasing use of mobile units and downsized restaurants requiring smaller land parcels. The mobile restaurant eliminates certain fixed costs associated with standard units. Arby's expects to have 20 mobile units in operation by 1988. Other chains, including Burger King and Pizza Hut, are also developing fleets of mobile restaurants.

At $100,000 each--compared with an estimated $750,000 for a fixed freestanding Arby's--the mobile units are expected to produce a high return on investment. Projected sales of $400,000 to $600,000 a year would be about comparable to sales at a standard Arby's. The mobile unit, which is 32 feet long and 8 feet wide, contains a scaled-down version of the equipment used in a freestanding Arby's outlet. Using a crew of six to eight employees per shift, the mobile restaurant offers many of the same items found on Arby's menus, including breakfast.

Outlook

Overall, real industry sales likely grew about 2.5 percent in 1986. Sales in fast food outlets may have exceeded, for the first time, those of restaurants with waiter/waitress service. The number of nonprofit foodservice outlets among elementary and secondary schools and the military services will continue to decline. The number of schools participating in the National School Lunch Program has steadily declined since 1979. The military continues to close troop feeding operations and onpost clubs and exchanges throughout the United States. Some of the military foodservice closings have resulted in the opening of chain outlets and onpost contract feeders.

As the "Retail Grocery" section of this report noted, the line between food sales at home and away from home is becoming increasingly blurred. More and more supermarkets have full-service delicatessens and self-service soup and salad bars. Fast food sales in convenience stores in 1985 accounted for 13 percent of sales (other than gasoline sales) compared with 9 percent in 1983 according to surveys conducted by the National Association of Convenience Stores. In a limited test in 1986, the 7-Eleven convenience store chain teamed up with Hardee's and began cooking Hardee's hamburgers in 7-Eleven stores. Later that year, similar joint ventures were tested with Church's Fried Chicken and the Rocky Rococo pizza chain. Such sales detract from the incomes of such traditional foodservice outlets as restaurants, cafeterias, and fast food places but are counted as retail grocery sales.

Fast foods are not necessarily served fast; convenience stores may offer them faster. Supermarkets are sending part of their food sales to the consumer's home in a pre-prepared, ready-to-eat form. And consumers can enjoy dinner fares of traditionally sitdown restaurants at home without ever entering the restaurants that prepared their dinners. In 1976, fewer than 10 percent of American households owned a microwave oven and in 1980, 13 percent owned one, according to ongoing Gallup surveys. By spring 1986, 57 percent of the homes in the United States had a microwave.

On the other hand, many restaurants never before involved in the carryout business are offering all or part of their menus for carryout. The number of eating place customers ordering lunch and dinner to go is on the rise, according to data from CREST Household Report, 1986. In 1985, 35 percent of all lunch orders were eaten off premise compared with 28 percent in 1982. Takeout traffic for the midday meal jumped 29 percent between 1982 and 1985, while the number of patrons eating inside the restaurant declined 6.2 percent during the same period.

Virtually all of the growth in dinner traffic from 1982 to 1985 came from off-premises business. Takeout and delivery traffic at dinner more than doubled during 1982-85, and it increased its share of the market to 41.0 percent from 29.3 percent. At the same time, customer counts for on-premises dining fell 8 percent. As a result, off-premises dining now accounts for more than 25 percent of dinner sales (versus 16 percent in 1982).

Competition for dollars spent on food not prepared at home will continue to intensify for the next several years. The fast food industry has been especially aware of the growing competition for consumer food dollars and has moved in several new directions to retain or add to its market share.

The industry has introduced mobile units and is operating outlets in new locations, such as schools and college campuses, hospitals, military bases, toll roads, bus terminals, retail stores, shopping malls, center city office buildings, recreational sites, and international markets. Menus include such items as salad bars, salad entrees, pasta dishes, baked potatoes, gourmet burgers, more fish and chicken items, soups, lowfat milk, and whole grain buns. Many foods have been added in response to demand from health- and diet-conscious individuals (16, 29). This market segment has expanded as the scientific base linking diet and health mounts and as women, who are joining the labor force in large numbers, eat out more often. Many fast food outlets have upgraded their decor and added drive-through windows to attract more business. These outlets have also introduced breakfast and dinner specialties, extended operating hours, and established a niche in the catering business to get full use of equipment and to increase unit sales.

Many full-service restaurants are experimenting with lighter dishes and emphasizing freshness, quality, regional cooking, and seasonality to increase customer traffic. Compared with fast food places, these restaurants enjoy greater flexibility to adapt menus and preparation methods quickly to meet changing consumer preferences. This sort of competition spells opportunity not only for those who operate supermarkets and restaurants but also to the other links in their marketing chain. New and imaginative products and packaging adapted to the new environment of meal selection, preparation, and consumption will be successful if they mesh with changing consumer attitudes and behavior.

Such factors as increased disposable income, growing numbers of women in the workplace, and increasing numbers of Americans in the 25-44 age group (they eat out more often than other age groups) will continue to be pluses for the foodservice industry over the next few years.

The older population also has a role to play in the future of food service. Consumers 50 years of age and over account for half ($130 billion) of the U.S. discretionary income, according to the Conference Board, a New York business research organization. And, the 50-and-over age group will grow 23 percent by the year 2000 compared with an expected 14-percent increase among the rest of the U.S. population. Consumer Expenditure Survey results show older households have been spending an increasing share of their total food budgets on dining out, and a recent CREST report on the senior market found restaurant usage by this segment was rising at a faster-than-average rate.

Older Americans are expected to carry the same eating habits throughout their lives. By the year 2000, this age group will contain the generation that grew up on fast foods, drive-through windows, salad bars, and home-delivered pizzas. With the children grown and living away from home and with the home mortgage paid off (80 percent of homeowners 55-64 years old own their homes), the interest in convenience foods and dining out probably will continue as the population ages. Such predictions are counter to the traditional social belief that older people eat out less often than younger people. However, given the money, the opportunity, and the mind-set, those 50 and over should positively affect foodservice sales over the next decade.

Growth in eating place sales will continue during 1987 but at a rate below the average for the last decade. Much of the growth in units and sales will be on less traditional sites (for example, mobile units, college campuses, office buildings, military bases, hospitals, and nursing homes).

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Appendix table 1--Food expenditures through the food marketing system

Year	Off-premise use					Food service			Total
	Food stores	Other stores	Home delivered, mail order	Farmers, manufacturers, wholesalers	Total	Commercial	Non-commercial	Total	
	Billion dollars								
1963	44.1	3.0	2.7	1.6	51.5	NA	NA	22.5	74.0
1967	52.1	3.3	2.5	1.6	59.5	NA	NA	30.4	89.9
1972	74.1	4.2	2.4	1.8	82.6	NA	NA	46.3	128.9
1977	117.8	7.7	2.3	2.9	130.7	58.6	26.4	85.0	215.7
1982	178.8	11.0	2.6	4.3	196.7	100.1	40.9	141.0	337.7
1983	186.2	11.8	2.6	4.3	204.8	110.9	43.1	154.0	358.5
1984	195.3	12.4	2.6	4.6	214.8	121.6	45.0	166.6	381.4
1985	203.5	12.8	2.5	4.7	223.5	129.7	45.6	175.3	398.8
1986 1/	NA	NA	NA	NA	234.0	139.0	47.0	186.0	420.0

NA = Not available.
1/ = ERS projections.

Sources: (20, 42).

Appendix table 2--Alcoholic beverage sales through the food marketing system

Year	Packaged alcoholic beverages				Alcoholic drinks				Total
	Liquor stores	Food stores	All other	Total	Eating and drinking places 1/	Hotels and motels	All other	Total	
	Million dollars								
1963	4,465	2,594	725	7,984	5,306	458	385	6,149	14,133
1967	6,005	3,211	955	10,975	6,642	667	587	7,896	18,871
1972	9,010	5,103	1,178	15,291	8,844	961	704	10,509	25,800
1977	11,630	8,021	1,963	21,614	11,979	1,713	1,267	14,949	36,563
1982	15,904	13,348	3,374	32,626	18,352	2,849	1,515	22,716	55,342
1983	16,776	13,830	3,651	34,257	19,941	3,128	1,608	24,177	58,434
1984	15,995	14,738	3,877	34,610	20,701	3,386	1,673	25,760	60,370
1985	15,684	15,421	4,071	35,176	21,470	3,653	1,758	26,881	62,057
1986 2/	NA	NA	NA	36,500	NA	NA	NA	27,800	64,300

NA = Not available.
1/ Includes tips. Excludes all noncommercial eating facilities and such commercial outlets as hotel restaurants, department store coffee shops, and ball park food concessions. These eating facilities numbered over 397,000 in 1982 and over 343,000 in 1977.
2/ ERS projections.

Source: (20).

Appendix table 3--Value added and employment generated by the food marketing system

Item	1972	1977	1982	1984	1985	1972	1977	1982	1985
	Billion dollars					Percent			
Value added:									
Food sector	143.4	217.6	337.3	384.9	417.1	11.8	10.9	10.7	10.4
Processing	30.6	45.0	65.0	74.1	78.8	2.5	2.2	2.0	2.0
Retailing and wholesaling	37.9	57.8	87.0	96.7	109.9	3.1	2.9	2.6	2.7
Transportation	6.5	9.8	16.9	19.5	21.0	.5	.5	.5	.5
Eating and drinking places	18.5	27.3	46.8	53.9	57.8	1.5	1.4	1.4	1.4
Other supporting sectors 1/	49.9	77.7	121.6	140.7	149.6	4.1	3.9	3.7	3.7
Farm sector (food products)	22.0	30.1	48.1	43.9	49.7	1.8	1.5	1.5	1.2
Nonfood sector	1,047.4	1,742.5	2,780.6	3,336.2	3,531.3	86.6	87.5	87.8	88.3
Gross national product	1,212.8	1,990.5	3,166.0	3,765.7	3,998.1	100.0	100.0	100.0	100.0
	Millions								
Full-time equivalent employment:									
Food sector	11.4	11.5	12.1	12.1	12.3	13.2	11.6	11.0	10.6
Processing	1.6	1.5	1.5	1.5	1.5	1.8	1.5	1.4	1.3
Retailing and wholesaling	3.0	3.0	3.2	3.1	3.2	3.5	3.0	2.9	2.8
Transportation	.4	.4	.4	.4	.4	.4	.4	.4	.3
Eating and drinking places	2.9	3.1	3.4	3.5	3.5	3.3	3.1	3.0	3.0
Other supporting sectors 1/	3.5	3.5	3.6	3.6	3.7	4.0	3.5	3.3	3.2
Farm sector (food products)	2.4	2.2	1.7	2.0	1.8	2.7	2.2	1.5	1.6
Nonfood sector	72.7	85.3	96.4	99.0	101.4	84.0	86.2	87.5	87.8
Civilian labor force	86.5	99.0	110.2	113.5	115.5	100.0	100.0	100.0	100.0

1/ Value added and employment in "other supporting sectors" includes auxiliary activities needed to provide food to the final user. It includes, for example, the value added and employment needed by the packaging industry to produce containers used in the food sector. It does not include the cost of materials used to produce related products.

Source: (19).

Appendix table 4--Major economic indicators

Year	Population	Gross national product		Disposable personal income		Per capita DPI		Median family income	Employment	Unemployment rate
	Millions	Current million dollars	1982 million dollars	Current million dollars	1982 million dollars	Current dollars	1982 dollars	1984 thousand dollars	Millions	Percent
1963	189.2	607	1,873	451	1,291	2,197	6,378	21.3	69.7	5.5
1967	198.7	816	2,271	562	1,493	2,828	7,513	25.7	76.6	3.7
1972	209.9	1,212	2,608	840	1,797	4,000	8,562	27.6	87.0	5.5
1977	220.2	1,991	2,959	1,379	2,067	6,262	9,381	27.4	99.0	6.9
1982	232.3	3,166	3,166	2,261	2,262	9,732	9,732	25.2	102.0	9.5
1983	234.5	3,406	3,279	2,428	2,355	10,339	9,952	25.7	102.5	9.5
1984	236.7	3,765	3,489	2,670	2,468	11,279	10,427	26.4	106.7	7.4
1985	238.8	3,998	3,585	2,828	2,509	11,695	10,505	27.7	108.8	7.1

Sources: (43, 51, 58).

Appendix table 5--Consumer, producer, and farm price indexes

Year	Consumer Price Index					Producer Price Index		Farm Price Index		
	Total food	At-home food	Away-from-home food	All items less food	All items	Total finished goods	Finished consumer goods	All farm products	Crops	Livestock
	1967 = 100							1977 = 100		
1963	91.2	87.3	90.7	92.0	91.7	93.7	91.4	53	55	51
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	55	52	57
1972	123.5	121.6	131.1	125.8	125.3	117.2	121.7	59	60	77
1977	192.2	190.2	200.3	191.2	181.5	181.7	189.9	100	100	100
1982	285.7	279.2	306.5	288.4	289.1	280.7	259.3	133	121	145
1983	291.7	282.2	319.9	298.3	298.4	285.2	261.8	134	127	141
1984	302.9	292.6	333.4	311.3	311.1	291.1	273.3	142	138	146
1985	309.8	296.8	346.6	323.3	322.2	293.8	271.2	128	120	136

Sources: (39, 57, 59).

Appendix table 6--Value of U.S. dollar and interest rates

Year	Value of U.S. dollar 1/		Interest rates	
	Nominal	Real 2/	Short-term 3-month Treasury Bill	Long-term corporate bonds AAA (Moody's)
	----- 1973 = 100 -----		----- Percent -----	
1963	NA	NA	3.157	4.26
1967	120.0	NA	4.321	5.51
1972	109.1	NA	4.071	7.21
1977	103.3	93.1	5.265	8.02
1982	116.6	111.7	10.686	13.79
1983	125.3	177.3	8.63	12.04
1984	138.2	128.7	9.58	12.71
1985	143.2	132.0	7.48	11.37
I	156.5	144.2	8.18	13.39
II	149.1	137.0	7.52	13.02
III	139.2	128.5	7.10	12.47
IV	128.2	118.3	7.14	11.98
1986				
I	119.5	110.2	6.90	9.57
II	114.2	104.6	6.14	9.03

NA = Not available.
1/ Multilateral trade-weighted.
2/ Adjusted by changes in consumer prices.

Source: (13).

Appendix table 7--Food and nonfood sales or shipments in food marketing

Year	Processing	Wholesaling	Food service	Retailing
	Million dollars			
1972	115,051	106,457	NA	99,035
1977	192,912	182,905	81,776	157,941
1982	280,794	288,658	133,264	245,346
1983	286,967	312,800	145,733	254,878
1984	300,890	340,600	158,485	270,430
1985	307,358	357,600	172,749	282,198
1986 1/	315,000	382,100	183,114	294,615

NA = Not available.
1/ ERS projections.

Sources: (42, 45, 47, 48, 52, 54).

Appendix table 8--Number of food marketing establishments

Year	Processing	Wholesaling	Eating and drinking places 1/	Retailing	Total
	Number				
1963	37,521	41,890	334,481	319,433	733,325
1967	32,517	40,005	271,182	294,243	637,947
1972	28,193	38,531	359,524	267,352	693,420
1977	26,656	37,960	368,066	252,853	685,135
1982	22,130	38,516	379,444	241,737	684,084

1/ Excludes all noncommercial eating facilities and such commercial outlets as hotel restaurants, department store coffee shops, and ball park food concessions. These eating facilities numbered over 397,000 in 1982 and over 343,000 in 1977.

Sources: (45, 47, 48).

Appendix table 9--Number of food marketing establishments covered by unemployment insurance 1/

Year	Processing	Wholesaling	Eating and drinking places 2/	Retailing	Total
			Number		
1978	24,999	39,339	284,531	127,974	476,843
1979	24,172	40,009	288,016	128,114	480,311
1980	24,218	40,613	290,959	129,402	484,320
1981	24,061	41,629	292,570	129,921	488,181
1982	24,180	42,626	297,630	132,067	496,503
1983	24,127	43,498	305,684	135,125	508,434
1984	23,845	44,856	308,966	136,651	514,318
1985	23,669	45,571	314,112	138,561	521,896

1/ Includes production establishments, central business offices, and other auxiliary units.

2/ Excludes all noncommercial eating facilities and such commercial outlets as hotel restaurants, department store coffee shops, and ball park food concessions. These eating facilities numbered over 397,000 in 1982 and over 343,000 in 1977.

Source: (58).

Appendix table 10--Number of food marketing establishments (county business patterns) 1/

Year	Processing	Wholesaling	Eating and drinking places 2/	Retailing	Total
			Number		
1974	25,383	34,736	241,253	160,233	461,605
1975	24,550	34,577	245,774	159,710	464,611
1976	24,113	34,893	252,267	162,010	473,283
1977	24,294	35,951	275,761	167,088	503,094
1978	23,748	35,019	278,609	161,230	498,606
1979	21,362	36,127	275,447	159,162	492,098
1980	20,983	35,636	271,236	157,649	485,504
1981	20,720	35,535	273,726	162,952	492,933
1982	20,808	36,521	299,684	173,311	530,324
1983 3/	21,757	39,517	351,935	187,451	600,720
1984 4/	21,667	37,492	350,619	185,133	594,911

1/ Includes administrative and auxiliary establishments, both of which are excluded from table 8. See footnote 1 of table 8.

2/ Excludes all noncommercial eating facilities and such commercial outlets as hotel restaurants, department store coffee shops, and ball park food concessions. These eating facilities numbered over 397,000 in 1982 and over 343,000 in 1977.

3/ Beginning in 1983, establishments were included if they were in existence any time during the year. For prior years, only firms in existence at the end of the year were included.

4/ ERS projections.

Source: (49).

Appendix table 11--Sales of top 50 food processing companies

Company	1985	1984
	Million dollars	
General Foods Corporation (Philip Morris)	9,020	8,600
Beatrice Foods	8,130	5,840
R.J.R.-Nabisco	8,000	4,700
Kraft, Inc. (Dart & Kraft)	7,100	6,800
Coca-Cola Company	6,830	6,270
Anheuser-Busch	6,820	6,340
PepsiCo, Inc.	5,970	5,620
Sara Lee Corporation	5,950	5,060
Borden, Inc.	4,720	4,570
H.J. Heinz Company	4,040	3,950
Campbell Soup Company	3,980	3,650
Philip Morris Companies, Inc.	3,590	3,660
ConAgra	3,560	1,430
Ralston-Purina	3,550	1,880
Kellog Company	2,930	2,600
Nestle Enterprises, Inc.	2,880	2,700
Proctor-Gamble	2,810	2,460
General Mills	2,770	2,710
Quaker Oats Company	2,750	2,560
C.P.C. International, Inc.	2,520	2,550
Pillsbury Company	2,410	1,790
Hershey Foods Corporation	1,990	1,840
United Brands Company	1,900	1,920
Anderson Clayton	1,750	1,400
Wilson Foods Corporation	1,530	1,880
George A. Hormel and Company	1,500	1,450
Strohs Brewery Company	1,500	1,500
I.C. Industries	1,380	1,250
G. Heilman Brewing Company	1,330	1,340
Thomas J. Lipton, Inc.	1,270	1,140
Tyson Foods, Inc.	1,400	750
Adolph Coors Company	1,070	948
Dean Foods Company	1,030	923
American Home Products	1,020	996
Keebler Company	939	876
McCormick and Company, Inc.	826	747
The Southland Corporation	803	725
Interstate Bakeries Corporation	704	686
Smithfield Foods	669	542
Thorn Apple Valley, Inc.	659	664
Curtice-Burns, Inc.	636	612
Flowers Industries, Inc.	626	603
Ocean Spray Cranberries Inc.	542	466
Codberry Schweppes, Inc.	512	564
American Brands, Inc.	510	494
Winn Enterprises	502	411
Universal Foods Corporation	493	433
SCM Corporation	422	393
S.S. Pierce Company	404	377
Gerber Products	401	406

Source: (25).

Appendix table 12--Sales of top 25 wholesale food companies, 1985

Company	Sales
	Million dollars
Super Value	5,589
Fleming Companies, Inc.	5,511
Wetterau, Inc.	2,915
Sysco Corporation	2,800
Malone and Hyde, Inc.	2,682
Wakefern Food Corporation	2,500
Scrivner, Inc.	2,166
Certified Grocers (CA)	1,874
CFS Continental, Inc.	1,700
PYA Monarch, Inc.	1,500
Associated Wholesale Grocers (K.C.)	1,475
Super Food Service, Inc.	1,397
Roundy's, Inc.	1,380
Spartan Stores, Inc.	1,312
McLane Company	1,001
Rykoff-Sexton, Inc.	1,000
Kraft, Inc.	917
Richfood, Inc.	870
Twin County Grocers, Inc.	858
Springfield Sugar and Products	850
Gateway Foods, Inc.	800
Associated Grocers (Seattle)	757
Nash Finch Company	715
Certified Grocers Midwest	700
Alfred M. Lewis, Inc.	687

Sources: (5, 37).

Appendix table 13--Sales of top 20 food retailing companies, 1985

Company	Sales 1/
	Million dollars
The Kroger Company	15,967
Safeway Stores, Inc.	15,399
American Stores Company	2/13,890
Winn-Dixie Stores Company	8,050
The Southland Corporation	2/ 7,000
Lucky Stores, Inc.	6,225
The Great Atlantic and Pacific Tea Company	5,164
Albertson's, Inc.	5,060
Supermarkets General Corporation	4,575
Publix Supermarkets, Inc.	3,446
Vons Grocery Company	2/ 2,664
Grand Union Company	2,559
Giant Food, Inc.	2,247
H.E. Butt Grocery Company	1,936
Food Lion	1,857
Ralphs Grocery Company	1,814
The Stop & Shop Companies, Inc.	1,810
Waldbum, Inc.	1,764
First National Supermarkets, Inc.	1/ 1,400
Dominick's Finer Foods	1/ 1,300

1/ Excludes company sales other than food retailing.
2/ Estimated.

Source: (5).

Appendix table 14--Sales of top 25 service operators

Company	1985 Rank	1985 Sales	1984 Rank	1984 Sales
		Million dollars		Million dollars
McDonald's Corporation	1	11,000	1	10,006
Pillsbury Restaurant Group	2	5,538	2	4,364
Pepsi Cola Foodservice Division	3	3,671	4	3,159
Marriott Corporation	4	3,394	6	2,921
Kentucky Fried Chicken	5	3,100	3	3,328
Wendy's International	6	2,694	7	2,423
USDA, Food & Nutrition Service	7	2,671	5	3,032
ARA Services, Inc.	8	2,380	10	1,960
Imasco U.S.A.	9	1,936	8	2,200
Trans World Corporation	10	1,815	11	1,712
Holiday Corporation	11	1,622	9	2,020
International Dairy Queen	12	1,604	12	1,423
Denny's, Inc.	13	1,280	13	1,237
Saga Corporation	14	1,254	14	1,130
Sheraton Corporation	15	1,162	15	1,095
Domino's Pizza	16	1,084	32	626
General Mills Restaurant Group	17	1,050	16	1,080
W.R. Grace Restaurant Group	18	1,036	21	771
Service America Corporation	19	1,000	19	980
Shoney's, Inc.	20	985	17	932
Collins Foods International	21	895	23	752
Hilton Hotels	22	881	20	790
U.S. Navy Foodservice	23	852	18	873
Arby's, Inc.	24	811	22	756
Southland Corporation	25	810	37	508

Source: (5).

Appendix table 15--Number of food marketing companies

Year	Processing	Wholesaling	Food service	Retailing	Total
			Number		
1963	32,617	35,666	NA	NA	NA
1967	26,549	33,848	NA	NA	NA
1972	22,171	32,053	221,883	218,320	494,427
1977	20,616	31,670	226,421	200,486	478,590
1982	16,800	31,290	198,088	198,815	444,993

NA = Not available.

Sources: (45, 46, 48).

Appendix table 16--Aggregate concentration in food marketing, census years

Year	Share of market controlled by top firms			
	Top 50 processing firms	Top 50 wholesaling firms	Top 20 retailing firms	Top 50 foodservice firms
	Percent			
1963	NA	NA	34.0	NA
1967	35.0	NA	34.4	NA
1972	38.0	48.0	34.8	13.3
1977	40.0	57.0	34.5	17.8
1982	43.0	64.0	34.9	20.2

NA = Not available.

Sources: (45, 47, 48).

Appendix table 17--Number of food marketing mergers

Year	Processing	Wholesaling	Retailing	Food service	Total
1982	250	38	38	51	377
1983	225	38	45	64	372
1984	242	37	60	78	417
1985	291	64	52	73	480

Source: (6).

Appendix table 18--Food marketing mergers costing more than $100 million, 1985 1/

Buyer	Seller	Price	Type 2/
		Million dollars	
Philip Morris Company	General Foods Corporation	5,965	2
Kohlberg, Travis, Roberts, and Company	Beatrice Foods Corporation	5,362	2
R.J. Reynolds Industries, Inc.	Nabisco Brands, Inc.	4,906	2
Pantry Pride, Inc.	Revlon, Inc.	1,639	2
Proctor and Gamble Company	Richardson, Vicks, Inc.	1,611	2
Chesebrough-Ponds, Inc.	Stauffer Chemical Company	1,218	2
PepsiCo, Inc.	M.E.I. Corporation	683	2
Private group	Household International Inc.	645	1
Castle and Cooke, Inc.	Flexi-Van Corporation	559	2
Private group	Ralston Purina Company (Foodmaker, Inc.)	450	1
Pillsbury Company	Diversifoods, Inc.	388	2
Coca-Cola Company	Embassy Communications, Inc. and Tandem Productions	365	3
Proctor and Gamble Company	Monsanto Company	300	1
National Distillers and Chemical Corporation	Reliance Group Holding, Inc.	225	1
Sandoz Ltd. - Switzerland	Martin Marietta Corporation (subsidiary)	190	1
Circle K Corporation	Shop and Go, Inc.	167	2
Kroger Company	Hook Drugs, Inc.	161	2
PepsiCo, Inc.	Allegheny Beverage Corporation	160	1
USA Cafes	Ponderosa, Inc.	154	2
Whirlpool Corporation	Dart and Kraft, Inc. (Kitchen Aid)	150	1
Wesray/Capital Corporation	Pepsico, Inc. (Wilson Sporting Goods)	150	1
Private Group	Swift Independent Corporation	140	2
Pullman Company	Peabody International Corporation	127	2
Private Group	I.C. Industries, Inc. (P.P.C. Food Markets)	125	1
Unilever N.V.-Netherlands	Anderson Clayton and Company	113	1

1/ Completed or pending.
2/ 1 = Divestiture, 2 = public seller, 3 = private seller.

Source: (15).

Appendix table 19--Food marketing mergers among the 100 largest transactions in history

Company	Rank among transactions	Price	Year announced
		Million dollars	
Philip Morris Companies	7	5,628	1985
General Foods Corporation			
Kohlberg, Kravis, Roberts, and Co.	9	5,362	1985
Beatrice Companies			
R.J. Reynolds Industries, Inc.	12	4,906	1985
Nabisco Brands, Inc.			
Nestle S.A.-Switzerland	23	2,886	1984
Carnation Company			
Beatrice Foods Company	28	2,486	1984
Esmark, Inc.			
Kraft, Inc.	32	2,400	1983
Dart Industries			
Pantry Pride, Inc.	48	1,639	1985
Revlon			
Proctor and Gamble Company	49	1,600	1985
Richardson-Vicks, Inc.			
R.J. Reynolds Industries	64	1,303	1982
Heublein, Inc.			
Chesebrough Ponds, Inc.	69	1,200	1976
Stauffer Chemical Company			

Source: (15).

Appendix table 20--Acquisition and divestiture leaders in food marketing, 1985

Company	Acquisitions	Divestitures
	Number	
ConAgra	8	0
Dart and Kraft, Inc.	8	0
Coca-Cola	7	0
Pillsbury	7	0
Dean Foods Company	5	0
Kroger	5	0
Siena Spring Water Company	5	0
Beatrice Company	0	10
Sara Lee Corporation	0	8
I.C. Industries, Inc.	0	7

Source: (15).

Appendix table 21--Food processing mergers

Year	Value	Rank among all industries	Foreign buyers		U.S. purchases of foreign firms	
			Number	Value	Number	Value 1/
	Million dollars		Number	Million dollars	Number	Million dollars
1981	3,800	5	9	135	7	52
1982	3,075	5	4	131	5	154
1983	1,163	17	9	253	6	105
1984	7,095	2	8	2,994	5	96
1985	11,838	5	8	257	10	70

1/ Includes only those mergers in which the value of the transaction was recorded.

Source: (15).

Appendix table 22--Number of employees in food marketing

Year	Processing	Wholesaling	Eating and drinking places 1/	Retailing: Food stores	Retailing: Grocery stores	Total
	Thousands					
1963	1,752.0	472.9	1,747.9	1,383.8	NA	5,356.6
1967	1,786.3	513.0	2,191.4	1,571.6	NA	6,062.3
1972	1,745.2	536.3	2,860.2	1,805.1	1,577.8	6,946.8
1977	1,711.0	611.7	3,948.6	2,106.3	1,837.2	8,377.3
1982	1,635.9	666.9	4,831.2	2,477.6	2,152.8	9,611.6
1983	1,614.8	682.4	5,041.8	2,556.2	2,234.6	9,895.2
1984	1,612.2	707.3	5,388.0	2,637.1	2,298.1	10,344.6
1985	1,607.9	734.3	5,715.1	2,778.6	2,427.0	10,835.9
January-June:						
1985	1,572.4	723.5	5,638.3	2,732.5	2,377.8	10,667.7
1986	1,603.5	752.8	5,846.4	2,893.9	2,517.8	11,096.6

NA = Not available.

1/ Excludes all noncommercial eating facilities and such commercial outlets as hotel restaurants, department store coffee shops, and ball park food concessions. These eating facilities numbered over 397,000 in 1982 and over 343,000 in 1977.

Source: (58).

Appendix table 23--Number of production workers in food marketing

Year	Processing	Wholesaling	Eating and drinking places 1/	Retailing: Food stores	Retailing: Grocery stores	Total
	Thousands					
1963	1,157.3	411.3	NA	1,289.9	NA	2,858.5
1967	1,187.3	442.3	2,047.8	1,456.6	NA	5,134.0
1972	1,191.8	462.2	2,673.7	1,676.1	1,467.3	6,003.8
1977	1,161.0	526.3	3,665.4	1,942.1	1,697.4	7,294.8
1982	1,125.6	575.3	4,444.1	2,294.0	2,016.5	8,439.0
1983	1,113.7	588.4	4,632.9	2,374.0	2,085.0	8,709.0
1984	1,119.5	598.3	4,925.9	2,441.7	2,139.7	9,085.4
1985	1,121.9	621.9	5,199.2	2,569.6	2,258.0	9,512.6
January-June:						
1985	1,087.9	612.4	5,099.2	2,517.3	2,212.0	9,316.8
1986	1,172.7	630.9	5,264.3	2,667.7	2,340.3	9,735.6

NA = Not available.

1/ Excludes all noncommercial eating facilities and such commercial outlets as hotel restaurants, department store coffee shops, and ball park food concessions. These eating facilities numbered over 397,000 in 1982 and over 343,000 in 1977.

Source: (58).

Appendix table 24--Average hourly earnings in food marketing

Year	Processing	Wholesaling	Eating and drinking places 1/	Retailing: Food stores
			Dollars	
1963	2.30	2.23	NA	1.90
1967	2.64	2.65	1.50	2.23
1972	3.60	3.69	2.07	3.18
1977	5.37	5.43	2.93	4.77
1982	7.92	8.25	4.09	7.22
1983	8.19	8.70	4.27	7.51
1984	8.39	9.03	4.26	7.64
1985	8.57	9.20	4.33	7.35
January-June:				
1985	8.57	9.17	4.32	7.46
1986	8.73	9.17	4.34	7.12

NA = Not available.

1/ Excludes all noncommercial eating facilities and such commercial outlets as hotel restaurants, department store coffee shops, and ball park food concessions. These eating facilities numbered over 397,000 in 1982 and over 343,000 in 1977.

Source: (58).

Appendix table 25--Average weekly earnings in food marketing

Year	Processing	Wholesaling	Eating and drinking places 1/	Retailing: Food stores	Retailing: Grocery stores
			Dollars		
1963	94.30	92.32	NA	66.69	NA
1967	107.98	107.86	50.10	74.48	NA
1972	145.80	143.91	62.97	104.30	106.92
1977	214.80	209.60	81.75	155.07	161.38
1982	312.05	315.15	107.16	221.65	230.38
1983	323.51	324.96	112.30	229.81	238.85
1984	333.92	347.66	112.04	233.78	244.24
1985	342.60	351.44	111.71	221.97	230.43
January-June:					
1985	338.95	348.43	110.78	223.29	232.69
1986	347.26	347.97	110.18	212.27	219.82

NA = Not available.
1/ Excludes all noncommercial eating facilities and such commercial outlets as hotel restaurants, department store coffee shops, and ball park food concessions. These eating facilities numbered over 397,000 in 1982 and over 343,000 in 1977.

Source: (55).

Appendix table 26--Food marketing productivity

Year	Output per employee hour: Red meats	Milk	Preserved fruits and vegetables	Bakery products	Sugar	Beer	Soft drinks	Output per person hour: Food stores	Eating and drinking places
					1977 = 100				
1967	74.8	62.9	73.8	82.8	77.1	47.4	66.6	98.0	97.5
1972	85.0	85.1	83.1	94.1	90.4	66.1	75.4	110.3	102.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1982	112.3	140.0	107.9	103.3	90.4	122.6	118.3	93.5	96.6
1983	115.9	145.5	110.9	106.9	98.6	131.3	127.0	93.9	97.1
1984	117.0	152.6	112.4	106.8	99.7	137.9	138.3	93.6	95.5
1985 1/	NA	NA	NA	NA	103.1	135.7	144.9	92.7	92.9

NA = Not available.
1/ Preliminary.

Source: (60).

Appendix table 27--Value added in food marketing productivity per full-time equivalent employee

Sector	1972	1977	1982	1983	1984	1985
			1982 dollars			
Food marketing	25,636	27,660	27,767	28,902	29,540	29,560
Processing	36,184	41,009	43,928	45,781	47,416	47,427
Retailing and wholesaling	25,557	29,498	27,022	28,066	28,972	28,892
Transportation	39,105	42,068	41,940	93,546	44,634	44,660
Eating and drinking places	12,822	13,787	13,773	14,069	14,654	14,652
Other supporting sectors	30,065	32,798	32,284	34,497	35,472	35,888

Source: (19).

Appendix table 28--Profit margins in food marketing

Year and quarter	After-tax profits for food and tobacco processing as a share of: Sales	After-tax profits for food and tobacco processing as a share of: Stockholders' equity	Before-tax profits for general line wholesalers as a share of net worth	After-tax profits for retail food stores as a share of: Sales	After-tax profits for retail food stores as a share of: Stockholders' equity
			Percent		
1977	3.1	13.2	NA	0.8	10.7
1982	3.1	13.0	17.2	1.0	12.6
1983	3.3	12.0	18.0	1.2	13.3
1984	3.3	13.3	14.6	1.4	16.2
1985 1/	4.1	15.3	NA	1.2	14.2
I	3.4	12.8	NA	.9	10.8
II	3.9	15.0	NA	1.4	16.5
III	4.6	16.5	NA	1.3	14.1
IV	4.6	16.9	NA	1.4	15.2
1986					
I	3.6	12.9	NA	.8	9.2
II	4.1	15.7	NA	1.4	15.2

NA = Not available.

1/ Beginning in 1985, food processing was combined with tobacco processing.

Source: (53).

Appendix table 29--Food-related advertising

Item	1984	1985	Percentage change	First half 1985	First half 1986	Percentage change
	Million dollars		Percent	Million dollars		Percent
Seven media 1/	5,561	6,159	10.7	2,961	3,138	6.0
Eating and drinking places 2/	943	1,126	19.4	510	580	13.7
Food stores	249	239	-4.0	116	180	12.0
Processed foods	4,369	4,794	9.7	2,335	2,428	4.0
Cooking products and seasonings	569	618	8.6	302	282	-6.7
Prepared and convenience foods	698	842	20.6	391	430	10.0
Dairy products	216	290	32.4	140	196	40.0
Fruits and vegetables	133	142	6.7	67	76	13.4
Meat, poultry and fish	162	174	7.4	86	88	2.3
Bakery	200	229	14.5	134	118	-2.0
Food beverages	458	432	-5.6	212	207	-2.4
Combination copy	37	33	-10.8	17	18	5.8
Confectionery	526	596	13.3	301	274	-2.3
Soft drinks	374	400	6.9	235	213	-9.4
Beer	575	601	4.5	268	302	12.7
Wine	148	184	24.3	68	101	48.0
Liquor	272	251	-7.7	114	103	-9.7
Newspaper	1,491	1,629	9.2	NA	NA	NA
Retail foodstores	988	1,057	6.9	523	540	3.3
Processed foods	167	150	-10.1	NA	NA	NA
Coupons and inserts	336	421	25.3	NA	NA	NA
Coupons	1,200	1,350	12.5	NA	NA	NA
Total advertising	8,252	9,138	10.7	NA	NA	NA

NA = Not available.

1/ Seven media includes network television, spot television, cable television, magazines, newspaper supplements, network radio, and billboards.

2/ Includes hotel restaurants not otherwise counted among eating and drinking places.

Sources: (1, 7, 22).

Appendix table 30--New products introduced in 22 selected categories

Category	1964	1967	1972	1982	1983	1984	1985
				Number			
Baby food	6	10	2	5	5	8	4
Baking ingredients	44	35	25	40	30	36	28
Beverages	62	75	39	61	81	137	147
Breads, cakes, cookies	20	30	38	81	106	103	103
Breakfast cereals	10	11	19	11	19	21	23
Candy and gum	37	25	36	90	122	123	136
Canned fruit, vegetable juices	14	22	21	52	84	69	74
Canned meat and fish	17	17	14	15	23	23	13
Dairy foods	28	38	40	91	115	158	167
Desserts, sugar, syrup	19	22	13	10	16	11	12
Fresh meats and fish	15	11	6	48	87	78	96
Frozen foods	72	145	165	207	251	286	322
Household and beauty aids	121	125	86	369	362	411	474
Household supplies	65	65	49	85	89	91	105
Low-calorie foods	28	39	17	60	91	93	71
Macaroni, potatoes, rice	27	20	27	30	35	23	42
Paper products	16	21	21	19	16	20	26
Pet products	17	7	46	33	28	40	51
Sauces, spices, condiments	48	55	50	71	94	109	127
Snacks, crackers, nuts	16	41	33	102	102	123	130
Soups	13	12	10	13	25	15	29
Tobacco products	20	35	17	17	19	14	26
Total	715	861	774	1,510	1,791	1,988	2,206

Source: (10).

Appendix table 31--Capital expenditures and capacity measures in food marketing

Item	1972	1977	1982	1983	1984	1985	1986
				Billions			
Food processing:							
Plants and equipment expenditures							
Current dollars	3.3	5.7	8.7	7.8	8.8	10.3	1/10.5
1982 dollars	7.4	8.6	8.7	7.7	8.6	9.6	8.9
				Percent			
Capacity utilization rates							
Fourth quarter:							
All industries	NA	79	65	72	75	75	NA
Food	NA	77	76	76	76	79	NA
Meat	NA	86	80	80	80	82	NA
Dairy	NA	76	77	80	76	81	NA
Fruits and vegetables	NA	72	81	77	77	76	NA
Grain mill	NA	NA	80	80	80	79	NA
Bakery	NA	81	72	70	83	82	NA
Sugar	NA	76	82	81	80	82	NA
Fats and oils	NA	84	76	82	87	84	NA
Beverages	NA	83	68	71	69	75	NA
Miscellaneous	NA	55	75	77	69	76	NA
				Square feet			
Food retailing:							
Total square footage	765,233	823,510	963,788	NA	NA	NA	NA
Selling area square footage	545,690	606,117	713,065	NA	NA	NA	NA
Food wholesaling:							
Warehouse square footage	370,079	350,532	NA	NA	NA	NA	NA
				Thousands of seats			
Food service:							
Seating capacity	9,342	10,099	12,035	NA	NA	NA	NA

NA = Not available.
1/ Preliminary.

Sources: (43, 47, 48, 50).

Appendix table 32--Foreign investment in food marketing

Item	1980	1981	1982	1983	1984	1985
	Million dollars					
Direct foreign investment in United States:						
Food manufacturing	4,869	5,721	6,635	7,447	8,270	11,172
Wholesaling	616	703	705	1,046	1,124	1,151
Food stores and eating and drinking places	1,447	1,966	2,012	2,106	2,174	2,729
Total	6,932	8,390	9,355	10,596	12,168	15,052
Foreign investment by United States:						
Food manufacturing	8,278	9,163	7,630	7,661	8,163	9,297
Wholesaling	601	669	662	801	805	997
Food stores and eating and drinking places	1,259	1,365	1,344	1,483	1,522	1,497
Total	10,138	11,197	9,636	9,945	10,490	11,791

Source: (43).

Appendix table 33--Foreign trade in processed foods

Item	Exports		Imports		Trade balance	
	1985	1986	1985	1986	1985	1986
	Million dollars					
All processed food	10,254	10,794	15,976	16,389	-5,722	-5,595
Meat products	2,308	2,721	2,422	2,436	-114	285
Dairy products	468	415	595	612	-139	-197
Preserved fruits and vegetables	819	840	2,179	1,844	-1,360	-1,004
Grain mill products	2,176	2,210	229	230	1,946	1,957
Bakery products	45	39	244	291	-199	-252
Sugar and confections	391	461	1,885	1,761	-1,494	-1,300
Fats and oils	2,319	2,247	722	608	1,597	1,647
Alcoholic beverages	408	478	3,078	3,458	-2,670	-2,980
Miscellaneous foods	1,320	1,383	4,621	5,134	-3,301	-3,751
Seafood	1,008	1,037	3,863	4,208	-2,855	-3,171
All processed food less seafood	9,246	9,757	12,113	12,181	-2,867	-2,424

Source: (55).

*U.S. Government Printing Office : 1987 - 180-917/60076

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